LEADERSHIP, PSYCHOLOGY, AND ORGANIZATIONAL BEHAVIOR

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UNDER THE EDITORSHIP OF

GARDNER MURPHY

LEADERSHIP, PSYCHOLOGY, AND ORGANIZATIONAL BEHAVIOR

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To My Mother, Clara A. Bass

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PREFACE

The intention of this book is to gather together some of what we now know about leadership and to organize this knowledge into a set of generalizations held together by reason as well as experiment.

Various boundaries have been ignored in the development of this book and the theory it presents. While a generalization about small face-to-face groups needs qualification or elaboration before it adequately accounts for the behavior of a large organization, the theory attempts to show the orderliness in the changes and necessary qualifications. This is nothing new, for Confucius noted, "When a man understands how to lead men, he will then understand how to govern nations and empires." However, as we will emphasize, the man must also understand the differences in leadership demanded by his immediate group and the leadership demanded by the nation or empire.

Empirical data and hypotheses have been drawn from political philosophy, sociology, anthropology, industrial management, public opinion analyses, and history, as well as psychology and social psychology. But as the title implies, this book is a social psychology text. The web of relationships discussed is the behavior of persons as they interact with others. The assumptions stem from facts about individual behavior. Most of the experimental evidence is based on the work of psychologists and sociologists.

The burgeoning of laboratory, field, and survey research on leadership and behavior in groups in the past 15 years has been accompanied by the formulation of a variety of useful "small" theories, restricted in

scope, rigorous and elegant. Perhaps discretion has been the better part of valor for these theorists; perhaps we truly are not ready for any attempt at an overarching theory. Prompted by curiosity to see if it was possible, emboldened by some early success in making sense (to myself, at least) out of widely disparate conclusions reached by investigators from different disciplines, and convinced that the laws of individual behavior continue to apply when the individual interacts with other individuals, I have spent the past 7 years developing a "large" theory with the fondness of a parent for his first-born. As noted in Chapter 2, I offer the theory for whatever it is worth as a means of organizing a rather extensive body of available knowledge, knowing full-well that, as one critic quipped, all the meat may not fit on the bones. However, the definitions, constructs, postulates, and theorems have been chosen with the criterion in mind delineated in Chapter 2, particularly Ockham's dictum that it is vain to seek to explain by several entities or causes what can be explained by fewer.

Descriptions or assertions written 2000 or 3000 years ago about a phenomenon or generalization currently under study have been cited when possible to illustrate that students of group behavior today are not likely to uncover too many completely novel generalizations; rather, they are likely to isolate the more valid from the less valid. In the same way, the theorems offered in this work are seldom revolutionary in import. What may be novel is the fact that so many of these old statements, each originally in a language of its own, can be reformulated in terms of relatively few concepts.

This book was begun as the consequence of a Social Science Research Council seminar on leadership held during the summer of 1952. Several of the concepts, such as distinguishing between attempted, successful, and effective leadership, were developed as a result of an exchange of ideas with John K. Hemphill. Seymour Lipsit, Alvin Gouldner, Ben Willerman, and Cecil Gibb also contributed knowingly or unknowingly to my thinking. However, they should not be held responsible in any way for the shortcomings in what is presented.

Several theoretical articles, such as those by Smith (*964*) on controlled interaction and Cattell (*204*) on group learning, helped to provide the overall framework of the theory presented in this book. Particularly influential were a number of books on leadership by political philosophers, Hook (*539*), Titus (*1043*) and Toynbee (*1052*).

I am also indebted for various classical materials to Lin Yutang's *The Wisdom of China and India* (New York: Random House); to the Dryden translation of Plutarch's *Lives,* and S. A. Handford's *Fables of Aesop* (London: Penguin).

A variety of other important sources, summaries, and surveys made the writing of this book possible. Among these were the publications of Stogdill (*988*), Cartwright and Zander (*201*) and Murphy and Murphy (*775*).

While I did not work directly with the Ohio State Leadership Studies, close association with many of those who directed these projects, such as Carroll L. Shartle, Andrew Halpin, and Ralph Stogdill, provided me with an emphasis on distinguishing between person and position, and between description and evaluation. M. Brewster Smith is to be thanked for suggesting the use of power to describe control of highly motivated members.

I am particularly grateful to Luigi Petrullo and to Jane Criswell for their support of experiments to test aspects of the theory. They are also to be thanked for constructive criticism of the chapters on interaction potential. Donald J. Lewis is likewise to be thanked for his helpful review of all the chapters.

Then there are the many persons whose names do not necessarily appear in this text such as Clyde E. Noble, Delos D. Wickens, William P. Hurder, and Arthur W. Melton, but who nevertheless have influenced my thinking about science, psychology, learning, and group behavior. I also wish to thank unmentioned persons who may be the forgotten sources of what I imply is original thinking on my part.

I am thankful for the excellent secretarial help I received during the writing of this book from Mrs. Greta Sliger, without whom it would have been a much more difficult chore to complete this text. I am equally grateful to my wife, Ruth Bass, who served as my summer secretary, and to the employees of the Graduate School typing service who did the final typing. Appreciation is extended also to Lt. and Mrs. Richard M. Nacewski for their satisfactory completion of an arduous task: the indexes.

BERNARD M. BASS

Baton Rouge
June, 1958

PART I

INTRODUCTION

Why study interpersonal behavior?
What has the study been like in the past?
Do groups exist apart from their individual members?
Is it the individual or the situation which determines the course of events?
What is the purpose of theory?
How has logical positivism merged rationalism and empiricism?
What is an operational definition?
How are constructs chosen?
What postulates are selected?
How are deductions deduced?
What is the life expectancy of an adequate theory?

CHAPTER 1

STUDYING BEHAVIOR IN GROUPS

One fine day it occurred to the Members of the Body that they were doing all the work and the Belly was having all the food. So they held a meeting, and after a long discussion, decided to strike work till the Belly consented to take its proper share of the work. So for a day or two, the Hands refused to take food, the Mouth refused to receive it, and the Teeth had no work to do. But after a day or two the Members began to find that they themselves were not in a very active condition: the Hands could hardly move, and the Mouth was all parched and dry, while the Legs were unable to support the rest. So thus they found that even the Belly in its dull quiet way was doing work necessary for the Body, and that all must work together or the Body will go to pieces.
—Aesop's Fables (ca. *600* B.C.)

SIGNIFICANCE OF LEADERSHIP AND GROUP BEHAVIOR

With the increasing specialization of labor and the increasing age and complexity of industrial, business, and military organizations has come an increased complexity of relationships among the individuals within these organizations. The high degree of interdependence of individuals within modern society has augmented the need for effective communications among individuals, the importance of teamwork, and the demands for skill in leadership. But Aesop's fable illustrates the awareness in antiquity of human relations problems, problems quite important when our ancestors kidnapped their wives-to-be from another

tribe's village, when Caesar led his troops across the Rubicon, and when Columbus sailed with a mutinous crew to the New World.

However, industrialization has made our relationships and the problems resulting therefrom more complex and has forced us to recognize the need for intensive study of this area of interpersonal behavior in order to be better able to control and predict it. Riesman (*864*),[1] for example, believes that the current scientific interest in group behavior is a peculiar product of our times. For Riesman, we are living in an age where our attention is focused more on others rather than on ourselves. No doubt the main reason for our current concentration on groups, leadership, and men is that we no longer can afford the luxury of wasting manpower on the grand scale as in the past. Hooked to machines, each effective member of a civilized society becomes a great source of wealth and power over the environment. The loss in productivity, in control over nature, in ability to cope with competition and even to survive, becomes dramatically apparent when the social order and groups within the order operate ineffectively.

Both Meerlo (*736*) and Gouldner (*428*) emphasize that interest and concern about leadership stem from man's desire to master his environment through group effort. Toynbee's (*1052*) study of history is the study of men's success and failure to work with each other in dealing with their environment. Civilizations rise in response to a not-too-great challenge of nature. Civilizations fall when the challenge of men working with each other becomes too great. Newcomb (*784*) also emphasizes the significance of group relationships:

> It would probably not be an exaggeration to say that the principal source of human waste—in our own society, at least—lies in our failure to take advantage of group resources . . . what has been learned unfortunately, has not yet been stated in terms of general principles which can be communicated and verified by scientific procedures. Social psychology faces no more important task than that of discovering such principles, unifying them, and making them available for wider use (p. 650).

Wilson (*1125*) provides one of many examples of the significance of group effects on human performance in showing how the modification of group interrelationships led to a 30 percent increase in the productivity of coal miners.

[1] Parenthetical numbers refer to the list number of works cited in the bibliography at the back of the book.

RANGE OF IMPORTANCE. The need for adequate understanding of the phenomena of leadership and behavior in groups can be seen in disciplines ranging from the philosophy of history to psychiatry. For example, psychiatrists are concerned these days with milieu therapy, patient-attendant interaction, family adjustment during convalescence, and group therapy. By 1950, a 579-page bibliography on group therapy alone had been published by Kotkov.

UNIVERSALITY OF HUMAN INTERACTION. Leadership is a universal human phenomenon. As Spinoza observed in his *Ethics,* man is a social animal. Citing diverse anthropological reports on primitive groups in Australia, the Fiji Islands, New Guinea, the French Congo and elsewhere, Smith and Krueger (*961*) concluded that leadership occurs universally among all men regardless of culture. Problems of leadership, teamwork, coöperation, and group effectiveness exist in isolated Indian villages, among the nomads of the Eurasian steppe as among Polynesian fisherfolk.

While most animal species can survive through isolated activity, the mammal, and particularly man, has required a long period of nurturance and family support. Man's cultural development beyond the animal level has involved a high degree of coördinated interaction with other men. To be created, we must have mothers and fathers. While fatherhood is a more recent concept in the development of man, parenthood at least by the mother certainly has always presented for man ready-made patterns of leadership. Smith (*967*) regarded this ready-made pattern as a basic source of difficulty in a democratic society, since the pattern is that of the dependent child interacting with the all-powerful parent.

WHAT GROUPS? An adequate study of behavior in groups includes examining the relations among people in business, industry, and the Armed Forces, as well as considering interpersonal relations at home, in school, and in society in general. The culture, ethnic group, class, and various voluntary groups to which the individual belongs will also be relevant. Since the environment of most humans usually contains other humans and since they interact with each other during much of their time awake, it follows that the study of human relations should occupy a central position in the behavioral sciences, particularly in the United States.

America is a nation of joiners. We join everything and anything. We may

belong to the Rotary Club, the Elks, the Moose, the Red Men, the Owls, the Ku Klux Klan, the American Protective Association, the Masons, the Knights of Columbus, the Kiwanis, the Lions, the Knights of Pythias, the Modern Woodmen of America, the Odd Fellows, the Eagles, the Mystic Order of Veiled Prophets, the Daughters of the American Revolution, the Chamber of Commerce, the W.C.T.U., the Military Order of the Carboa, the Eastern Star, the Colonial Dames. . . . Some of us even form organizations called the Society for the Prevention of Calling Sleeping Car Porters George, the Order of Mules, the Veterans of Future Wars, the Guild of Former Pipe Organ Pumpers . . . the Military Order of the Cootie . . . and the Concatenated Order of the Hoo-Hoo! (Britt [*163*] p. 463.)

In the remainder of our 24-hour day, we may still have time to be a member of one of the 262 or more different college fraternities and sororities (Britt, [*163*]). Many of us, in addition, will belong to church groups, union locals, professional organizations, and informal social groups. It is quite probable that we will earn a living as a member of a work group. Finally, if we consider "getting away from it all" we return home to our family—a group.

In addition to membership in face-to-face groups, we are likely to belong to one or more cultures and to a social class. It seems apparent that to understand human behavior fully today, it is extremely important that we examine the individual as a member of groups.

THE COMPLEXITY OF THE PROBLEM

The picture is made much more complex because all of us are members of many groups, all at the same moment. Although in a certain instant in time we are observed operating as a member of one particular group, our behavior is at that very moment affected by our membership in many other groups.

EFFECTS OF MULTIPLE GROUP MEMBERSHIP. When Catholic and Jewish girls were brought together in a small club and asked to elect club officers, before religion was identified, both groups voted as often for nonmembers as members of their own religion. But in a comparable small group situation, where religious identities were disclosed, 64 percent of Catholic votes were for Catholic girls, while the Jewish girls continued to vote equally as often for members of either religion. However, in a *large* group situation, where the nominees' religions were known and where the voters were not identified, Jewish girls showed

the same tendency to vote for members of their own religion as did Catholic girls. The same effects were observed when stooges were alternately identified as Catholics and Jews for the benefit of different groups of voters in order to rule out any influences of the individual nominee on the outcomes (Festinger [*316*]).

To understand and predict a person's behavior in a designated social situation, it will often be necessary to determine his cultural background, his social class and ethnic group, and the nature of the present situation, as well as his past history, motivation, and biological status. For example, suppose a white person collides with a Negro while walking in a crowded department store. The white person may ignore the collision; he may beg the Negro's pardon; he may strike the Negro, etc. What the person does will depend upon whether the person is male or female, white or Negro, upper or lower class, fairly well adjusted or highly frustrated, and whether the situation is in the North or South (Queener [*843*]).

ELUSIVENESS OF INTERACTION EFFECTS. The very simplicity of the effects of interpersonal phenomena often militate against their being assigned a significant role in understanding and controlling human behavior.

Two groups of institutionalized epileptics were carefully matched for rate of seizure. One group was given an expensive series of tranquilizing drug treatments. The second group was given the same attention by physicians, nurses, and attendants, but placebos were administered instead. Then treatments were reversed for the two groups. Result: seizure rates dropped significantly during the course of the experiment for *both* groups. The attention, concern, and medicinal treatment contact of the hospital personnel drastically reduced epileptic seizure rates, not the particular medicine, serpacil. The statistical results were clear and reliable, but one of the medical investigators was unable to accept the results. He could not believe the fact that mere increased attention, care, or concern could have an effect as potent as the drug.

Well known are the "Hawthorne" studies which emerged with similar results in the area of industrial productivity.

Bingham (*128*) recalled the frustrations of the Committee on Industrial Illumination formed in 1924 by the National Research Council under the honorary chairmanship of Thomas A. Edison. Represented on this committee to demonstrate experimentally the effects of im-

proved factory lighting on production were many prominent physicists, physiologists, ophthalmologists, and electrical engineers.

A series of pilot experiments were designed and carried out. Everything went according to plan at first. When illumination was made stronger for a test group at the Hawthorne Works of the Western Electric Company, production increased. The surprise came when illumination was lowered to its original strength: instead of dropping back, production continued to climb. When two groups were used in the test and only one was given the benefit of increased illumination, the production of both groups climbed. The same continued increase in production by a relay assembly group was observed with the introduction *and the later removal* of rest pauses. Control groups for which no changes were made in hours of work, illumination, and rest showed production increases also.

Production continued to climb despite adverse physical conditions. Employees had developed a great deal of satisfaction from being able to communicate their ideas to management in the course of the experiments. They had developed the feeling that they had a voice in decisions concerning themselves.

APPROACHES TO EFFECTIVE INTERPERSONAL RELATIONS

Gibb, Platts, and Miller (*404*) identified six approaches to promoting group effectiveness:

(1) the *systematic-theoretical* approach: the setting up of systematic theories of small-group behavior which provide the basis for further empirical test;

(2) the *empirical* approach: the experimental and field studies which are designed to find certain functional relationships between relevant variables in the small-group situations; the gathering of empirical data relevant to theoretical or technological questions;

(3) the *engineering* approach: the various "engineering" attempts to change group behavior through group psychotherapy, social consulting, workshop training, and other change-agent projects, where applications of the findings of science are used to change social behavior;

(4) the *philosophic* approach: the speculative attempts to explore the social behavior of man, and to determine the bases for group behavior;

(5) the *practical* approach: the various attempts of social and religious organizations to arrive at ways of working together in groups, usually with minimum regard for "scientific" evidence for the principles used but with

a concern for practical results as shown by more effective groups and by more effective meetings;

(6) the *"achieving-democracy"* approach: the attempts on the part of various members and groups in an emerging democratic society to arrive at a "democratic" conception and practice of group action that will comport with the ideals of democratic living (pp. 71–72).

While we will present information gathered by all these approaches, our purpose is to attack the problem of group effectiveness by setting up a systematic theory—the first approach. Before beginning, it may be instructive to first view how the field has developed and then consider what it takes to construct a theory.

THEORY AND RESEARCH ON GROUP BEHAVIOR

Until the end of the last century, the study of group behavior was exemplified by the intelligent guesswork of philosophers such as Plato, Aristotle, Machiavelli, and Hobbes. The field of political science as a speculative discipline emerged. Sociological "wisdom research" based on observation, insight, and deduction mixed with some personal predilections culminated in the work of such figures as LeBon, Tarde, Mead, Cooley, and Simmel. But the various systems of philosophical principles which these men constructed, and which continue to strongly influence much present-day thinking in the social sciences, differed from our modern idea of an adequate system of principles. For these speculative systems, strictly speaking, as Frank (*361*) noted, cannot undergo any improvement. What may appear to be modification or improvement "only arises when an agreement in emotional coloring is taken for logical agreement." This armchair approach which combines raw empiricism with "common sense" leads to what may be called a dead-end discipline. The constructors and their followers "rotate around their own axes for centuries." As Voltaire remarked, "A witty saying proves nothing."

And matters have not changed very much among these traditionalists. In a reasonable critique, Blumer (*140*) finds that present social theory is divorced from the empirical world. It is mainly exegesis—examination and rearrangement of previous theoretical schemes, susceptible to importation of new schemes by the use of far-fetched analogy. It rarely

yields directly testable hypotheses and tends to be modified little by empirical findings.

We are now beginning to see the development of conceptual systems from which can be derived theorems providing testable hypotheses to guide further experiments. Moreno (*762*) and Lewin (*659*) focused attention on the need for organized theory amenable to experimental verification. They generated much significant empirical work. Stimulated by the earlier efforts, many more models have been constructed in recent years, each usually covering a much more restricted range of phenomena than attempted by Lewin or Moreno, e.g., Festinger (*317*), Deutsch (*268*), Schutz (*917*), J. R. P. French (*370*), Hemphill (*496*), and many others.

These models vary considerably in their attempt to be precise; to state theorems mathematically, symbolically, or verbally; and in the scope of behavior they wish to encompass. But they all show many of the characteristics regarded as desirable by the logical positivists. The theory to be presented in this book will probably be less rigorous yet wider in scope than most of the above.

AN EXPERIMENT

One of the earliest experimental investigations of behavior in groups was that by Triplett (*1056*). He examined children's speed in rotating fishing reels to move a flag down a "raceway" when competing with others rather than working alone. Competition energized children so much that typical stress effects emerged. Some children lost control and coördination in the competitive situation, while two-thirds showed gains in speed. Triplett's report was followed soon after by those of Mayer (*730*) and Schmidt (*911*), who found that work among children in groups was more effective than working alone.

Terman's (*1020*) study of leadership differs little from similar experimental analyses 50 years later, except for the statistical refinements. Long before the word was fashioned, Terman employed a form of "sociometric" ratings as a measure of esteem and found it related to observed success as a leader. He also noted the effects of situational differences on successful leadership. For example, he found that intelligence increased in association with successful leadership as his subjects increased in age.

Since the early pioneering studies, thousands of empirical investiga-

tions have been published. The pace was accelerated in the 1920's and then again about 1940. Until recently, "rather simple empirical questions have usually guided this type of data collection: Are groups better than individuals in solving problems? What is the size of the most commonly found informal group? Does group solidarity lead to greater group productivity . . ." (Cartwright and Zander [*201*], p. 6).

The present experimental aims of psychologists and allied scientists interested in this field have been summarized by Lippitt (*674*):

1. To investigate by experimental methods the behavior of small groups and the behavior of individuals as members of groups.
2. To attempt to combine in this work the fields of general psychology, social psychology, sociology and social anthropology.
3. To determine the dimensions along which small groups differ under differing conditions and to construct a body of theory from these.
4. To develop methods of measurement applicable to small group behavior.
5. To apply the findings of these experimental studies to leadership training procedures, group therapy and improving human relations in business, industry, government and social life.

These intentions describe the purpose of those experimenting with larger groups also. We are also beginning to see systematic explorations of changes of phenomena as one shifts from small to large groups and from informal to formal groups. Part VII of the present book will be devoted to this subject.

GROUP VERSUS INDIVIDUAL

Imagine a very critical but unimaginative person; also, one very imaginative but completely uncritical. Separately neither may accomplish anything. Together their abilities blend and great accomplishments may result. Is this "group" effect evidence for the existence of a "superorganic" group? No, whether groups exist apart from their individual members or the converse, whether all behavior in groups can be accounted for by the performance of individual members, are metaphysical or pseudoproblems. Let us randomly draw 12 groups of five members each from a population of such groups, and randomly assign the groups to one of three treatments. The total variation in performance we observe will be accounted for by three sources or main effects: the treatments, the groups within the treatments, and the members

within the groups. It is a matter of empirical examination and statistical test for a given set of treatments and population of groups as to how much of the total variation observed is accounted for by each of the three sources. No doubt, situations can be found where the variance in performance due to any one source approaches zero and where one or two of the other sources can account for most of the variance. For example, if the measurement of member performance requires little coöperation or influence from other members, the total variance in performance will probably be accounted for by treatment differences and member differences within the groups. Conversely, if the performance is a product of much member interaction, the variance due to groups-within-treatments may become significantly larger than the variance of members within each group. Inferred in this latter case is that group effects exist above and beyond effects due to individual members.

Sometimes, the measurements preclude isolating each member's performance. Suppose the raw data studied are the collective responses of a group composing an essay, or the pottery excavated from a village inhabited for several millennia. Only group effects can be studied. Only in theory can we consider individuals and their interactions when the data are such. But other sciences, such as astronomy, have similar measurement problems in which certain theoretical statements would be difficult to evaluate empirically. Conceptualization need not be altered because cases can be found where some of the variables cannot be measured.

NEED TO STUDY THE GROUP AND THE INDIVIDUAL. Understanding group behavior involves an examination of all three sources of variance. As Krech and Crutchfield (*628*) note, "general laws about group behavior must be qualified by principles about individuals." Moreover, the empirical laws must be reduced to the plane of observables, the behavior of members, and their interactions. If we return to our example, we see that we can tease out group effects, if they exist, from the observations of individual performance, but if we examine group products only, we cannot measure the variance in performance due to individuals.

Some investigators have conceived "group" as a real or directly observable phenomenon. For Durkheim (*290*), the group or society is an entity apart from the individuals in it. Others have regarded the group as a nonobservable nonentity (Horwitz and Perlmutter [*546*]).

Yet we argue that the effects of a group (above and beyond its members' effects) do appear in varying amounts depending on the behavior and conditions involved. Conceptually, we regard "group" as a useful construct. We will indicate the "rules of correspondence" between what any observer can see and the construct "group."

EXAMPLES. Many studies in a variety of situations have shown that it is necessary to examine the constituent members in order to understand the behavior of a group. Watson (*1008*) found that variations among groups in success in word building by rearranging letters was primarily a function of the ability of its best members. Borgatta and Bales (*151*) reported that the total rate of interaction within a group was a function of the specific individuals composing the groups. Several analyses by Cattell and coworkers illustrate that much of the common sources of variance among groups in performance could be accounted for by the means and variances within the groups in selected personality measurements (Cattell and Wispe [*209*]; Cattell, Saunders, and Stice [*206*]. Haythorn (*487*) rearranged 16 subjects in 4-man temporary groups to create a total of 20. No two persons were grouped together more than once. The personality of individual members affected the group effectiveness. Groups were most effective if composed of cooperative, insightful members. Group performance was partly a function of various characteristics of individual members. Yet group effects also existed apart from individual members.

Comrey (*233*) found that somewhat less than half of the variance of 65 pairs of subjects working together on the Purdue Pegboard could be accounted for by their individual differences in dexterity on the pegboard. Again, 27 work groups were arranged by pairing the same subjects repeatedly with others from the same pool. In carrying out the task, a Ball and Spiral problem, subjects differed significantly from each other across the variety of pairings in the amount of orders they gave. Some subjects gave more orders than others no matter whom they were paired with. But different coworkers tended to elicit significantly different amounts of leadership apart from who was doing the leading (Rosenberg, Erlick, and Berkowitz [*887*]).

Voiers (*1079*) noted that the proficiency of one air crew member depended partly upon the efficiency of his associates. For example, when the radar observer's general school grade is high, the correlation between the air crew commander's ability and bombing accuracy is

high, but when the radar observer's ground school grade is low, there is no relation between the air crew commander's ground school grade and bombing results.

At another level, Marriot (*718*) found differences in productivity between two British companies could be attributed partly to the fact that the employees in the less productive company averaged 6 more years in age, were not as well trained, had to travel further to work, and contained more ex-miners who were likely to be more suspicious and hostile toward management. In an analysis of 25 major wars, Abel (*3*) inferred that in every case, the decision to wage war was made by an autocratic or small power élite far in advance of hostilities. Many of the fateful decisions of history can be mainly accounted for by the behavior of specific individuals. "Even theological determinists like the Popes, who believe we can trace the finger of God in all historical events, speak of western culture since the Reformation as if it had been created by Luther and Calvin behind God's back" (Hook [*539*], p. 13).

BIOLOGICAL FACTORS. Biological characteristics of individual members also determine group behavior. Consider the differences between groups of chimpanzees, catarrhine monkeys, and platyrrhine monkeys. The chimpanzee esteem hierarchy is based on affection. The subordinate does not fear the superior. Under stress, the subordinate will fly into the arms of the superior. Subordinates may vent their anger at superiors, who laugh in turn.

Among baboons and macaques, esteem is based on strength and fear. There is little mutual affection. The weak or sick may be killed or starved. Esteem is jealously guarded.

Little dominance is expressed among the spider monkeys. There is very loose coherence or attention to each other. Aggression is usually expressed vocally rather than physically. In each of the three cases, most of the differences in mode of interaction can be accounted for by innate differences among the three varieties of primates (Maslow [*723*]).

At still a lower level, the swarming behavior of the army ant in a unified group moving toward common goals can be accounted for the reaction potential of the individual ant, which is to move forward to new chemically unsaturated ground and return. "In the forest environment where the complex phenomenon of the raid can build up, stage

upon stage, only humanized terms might seem adequate for the group action. But such terms are not adequate . . ." (Schneirla [*912*]).

Group effects can be accounted for completely by the individual mechanisms within the ant, almost completely by the biological makeup of the primate, and in varying degrees among humans depending on the group and the tasks it faces. As Wheeler (*1106*) notes, to understand a phenomenon, we must accept the fact that great effects and complexities can be explained in terms of lowly causes and simple reasoning.

GROUP CONCEPTS AND THE INDIVIDUAL. Yet Katz and Kahn (*593*) state that to understand industrial organizations and member behavior within them, we must take into account social-organization variables (defined without reference to individuals). For Katz and Kahn, the individualistic reward-punishment model is inappropriate.

While variables which transcend individuals, most surely, must be considered, it seems possible and profitable to attempt to define these variables in terms of individual behavior and interaction. For example, a critical concept in understanding formal organizations concerns the status structure. Status can be defined as the worth to the organization of an individual's position. The quantitative variance in this status is then the derived measure representing the status hierarchy.

THE RELATIVE IMPORTANCE OF THE SITUATION AND THE INDIVIDUAL

THE "GREAT MAN THEORY." Similar to the question of emphasizing the group or the individual is the matter of focusing on the situation (physical and social) of the individual.

Philosophers have argued for centuries the relative importance to history of "great men" versus the situation in which they were placed. The eighteenth century rationalists believed that the personal characteristics of significant figures coupled with good luck determined the course of history. For some of the more romantic philosophers of the next century, a sudden decision by a great man could redetermine history. The outstanding exponent of the "Great Man Theory" was Carlyle, who believed a genius would contribute somehow no matter where he was found. Other exponents of the hero in history were F. A. Wood, Nietzsche, Galton, LeBon, Trotter, Sumner, Pareto, Ortega y Gasset, and T. S. Eliot (Sherif and Sherif [*950*]). To William James (*569*) the "mutations" of society were due to great men. They initiated

movement and prevented others from leading society in another direction. Winston Churchill's histories may be characterized as examinations of the impact of great men on nations and countries. Fashionable among students of leadership until recently were the isolation by one method or another of the personality traits associated with successful leadership, across a variety of situations. Thus, Bird (*130*) compiled a list of 79 such traits from approximately 20 psychologically oriented studies prior to 1940. Stogdill (*988*) reviewed 124 leadership studies focused on personal characteristics of leaders following earlier similar reviews by Smith and Krueger (*961*) and Jenkins (*577*).

THE ENVIRONMENTALISTS. The other extreme was more popular among philosophers. For Hegel, the great man was an expression of the needs of his times. What he did was automatically correct, since he fulfilled the needs of his period. The great man could not help what he did, anyway, since he was simply an instrument of his historical environment. According to Spencer, societies evolve in a uniform, gradual, progressive manner. No great man could change the course of this development. In Buckle's thinking, great men were puppets of no historical significance. Hegel and Spencer's metaphysical doctrines of evolution and social determinism were "tested" by the historical fact-finding of Marx, Engels, Plechanov, Lenin, Trotsky, and Bukharin. For Engels, for example, economic necessity makes history. Men must clear obstacles from expanding production. The greater the task, the greater the need, the greater must be the ability of the problem-solver. But who he turns out to be is irrelevant (Hook [*539*]).

Some social psychologists with a strong sociological or anthropological orientation have emphasized situation rather than person. Mumford (*770*) showed that the amount of leadership in a society could be accounted for fairly well by describing the stage of development of the society. For Person (*818*) leadership was a response to environment. The situation completely determined the qualities of leadership and the means of leadership selection. Zillig (*1152*) argued that the personality of the leader expressed in some way the desires of those led. Cottrell (*239*) also emphasized situation, suggesting that the influencer responds to a situation according to his definition of the situation. In a critical analysis of the biography of great men, Spiller (*976*) inferred that the personalities and abilities of the great men had little importance in determining their stature and effects on society. "If a sweeping survey

of the field of human progress were made perhaps ninety-five per cent of the advance would be found unconnected with the great men" (p. 218). According to Spiller, the "great man" appears at a critically important advancement of a socially valued cause and devotes himself to it, profiting greatly from the many previous contributions of others.

A PSEUDOPROBLEM. As with groups versus individuals, we are dealing with a pseudoproblem. Suppose we repeatedly assess the leadership behavior of members of the same groups of five subjects each in a variety of situations: intellectual, mechanical, discussion. Ignoring the group effects we again have several sources of variance into which the total variation in leadership behavior among the individuals studied can be apportioned. One source is the variance in behavior of the individual members across the three situations combined. A second source is the variation of all individuals combined from one situation to another. A third source of variance is the interaction between individual and situation: the difference in fluctuation of individuals from one situation to another. Again, each source of variance can be raised or lowered. Situational variance can be reduced by making the situations more similar. Individual variance can be increased by using individuals more widely varying in designated personality attributes. The interaction variance can be altered by judicious choice of individuals and situations to study.

THE EMPHASIS ON INTERACTION OF INDIVIDUAL AND SITUATION

PHILOSOPHY OF HISTORY. Hook (*539*) effectively demolished the position of the extreme environmentalists without overemphasizing the significance of the individual personality. There is some restriction on the range of traits permitted the person in a high status position, e.g., no Negro will be the governor of South Carolina for a long time to come. But within this range, a wide variety of possibilities can occur and give rise to different historical effects. The history of Prussia and Germany would have been quite different if Frederick the Great's army had been trapped by the resolute Russian general Suvorov rather than the indecisive Buturlin who permitted Frederick to escape. It was a matter of a personality difference.

So many historical "ifs" can be posed of this nature that we are forced to admit the importance of personalities: if Napoleon had stopped at Vilna in 1812 as logic dictated instead of moving on to

Moscow since the Tsar was ready to meet his demands; if Alexander the Great had lived long enough to permit an orderly succession; if Franklin Roosevelt were still alive; if George III had not been psychotic. Even social determinists like Plechanov finally came to admit that history would be affected if the great man did not show up.

Hook's (*539*) resolution of the problem: ". . . heroic action can count decisively only where the historical situation permits of major *alternative* paths of development." Thus, Edward VIII's abdication was immaterial to the coming war. Lincoln would probably have suffered Wilson's fate had he served out his second term. If there had been no Columbus, then one of his fellow explorers would have reached the New World in short order. (In fact, it is guessed that the Portuguese, among others, knew long before about the Brazil coast but regarded the matter as a trade secret.)

Charles I, Louis XVI, and Nicholas II were "weak" because this was their mode of psychological defense against the fate which lay before them. They had no alternatives. Great men make history when alternatives are open to them. Napoleon on Elba still had alternatives; on St. Helena, he had none.

NEED TO CONSIDER SITUATION AND INDIVIDUAL. Any theory of leadership must take account of the interaction between situation and individual. Barnard (*56*) echoed this point of view, declaring that the conditions in which organizational management is demanded determine to some extent the leadership qualities needed. LaPiere (*634*), Jenkins (*577*), Murphy (*773*), Gibb (*395*), and Stogdill (*988*) are others who reached the same conclusion. For example, Stogdill commented following his survey of the literature of personal factors associated with leadership:

> . . . the pattern of personal characteristics of the leader must bear some relevant relationship to the characteristics, activities and goals of the followers . . . it is not especially difficult to find persons who are leaders. It is quite another matter to place these persons in different situations where they will be able to function as leaders. It becomes clear that an adequate analysis of leadership involves not only a study of leaders, but also of situation (pp. 64–65).

EXAMPLES. This conclusion is supported by a number of studies of the variations in the kinds of leader behavior reported and expected in

varying types of situations. While some types of behavior are reported and/or expected of leaders in *all* situations, other leader behaviors are more specific to *particular* types of situations (Hemphill [*492, 493, 494*]). For example, according to a survey study by Hemphill, Seigel, and Westie (*504*), in situations where the group has a high degree of control over its members, the leader is expected to dominate and actually does so, while in groups where members participate to a high degree, these expectations and reports of domination do not occur.

The matter is more complicated. Some leader behavior appears to depend more on situation; other leader behavior is a function of individual differences. Stogdill's (*990*) study of transferred executives indicated that some behavior of the transferee in the new situations is characteristic of himself rather than the position. This includes his tendency to delegate authority; to spend time in public relations; to evaluate, read, and answer mail; to read technical publications; and to spend time with outsiders. Other behavior, characteristic of the situation, is revealed in the amount of personal contact time; time spent with superiors; time spent in supervision, coördination, and writing reports.

Numerous experimental and field studies have noted fluctuations in leadership and behavior in groups as a consequence of altering situations. Summarizing the earlier literature, Murphy and Murphy (*774*) concluded that suggestibility varied from one situation to another. Thrasher (*1037*) observed that the particular activities of a gang determined who would be gang leader. Sterling and Rosenthal (*984*) reported that leaders and followers change with different phases of the group process. The same leaders reoccur when the same phases return. Similarly, Caldwell and Wellman (*184*) showed the basis of choice varied for the activities for which leaders were chosen by their junior high school classmates. For example, physical abilities determined selection of athletic leaders. Yet, at the same time, scholarship was high among chosen leaders in all situations examined. In a recent unpublished comprehensive summary of personal factors found associated with leadership in natural and experimental groups, R. D. Mann noted that in groups of seven or under in size, intelligence seemed a little more highly related to leadership than adjustment, while in larger groups adjustment increased slightly and intelligence decreased slightly in correlation with leadership.

Again, Dunkerly (*287*) found that college women chosen as intellectual leaders were superior in judgment, indicating initiative and intellectual ability; women chosen as social leaders were superior in dress, appearance, etc.; those chosen as religious leaders were least neurotic; while those chosen as social leaders were most neurotic. Similarly, Lanzetta (*632*) found an average correlation of only .51 between the tendency to emerge as a leader at each of three different levels of group stress. Different leaders emerged to some extent in the same groups as more stressful conditions were imposed. On the basis of "communication net" analyses, Heise and Miller (*491*) inferred that the task faced by the group is a determinant of the leadership and group behavior likely to occur. The uniqueness of the solution, the number of decisions to be made, and the amount of previous structure all are involved.

Variations in what it takes to be a leader are most apparent when we compare different cultures. The aggressive, efficient, ambitious, successful Manus leader in Oceania would have been roundly rejected by the Dakota Indians who valued mutual welfare, conforming to the group, generosity, and hospitality. Leadership among the Bachiga of Central Africa was found to be quite different than among their neighbors, the Bathonga. Individualism, lack of political integration, and lack of need to comply with leadership characterized the Bachiga; while obedience, respect for the chief, coöperative effort with little room for rivalry was said to be the rule among the Bathonga. The Samoans, with their consciousness of position and conformity to rank in a clear hierarchy, were observed to follow a different style of leadership dynamics than followed by the individualistic Eskimos where no man's importance is considered relative to another. Esteem and leadership among the Iroquois were achieved through behavior socially rewarding to others, such as generosity, coöperation, and hospitality; yet among the Kwakiutl on the other side of the North American continent, the ideal chieftain was one who could successfully compete financially against other chiefs. Again, what appeared to be demanded of the would-be leader was quite different among the Arapesh of New Guinea who have no strict ownership of land or scale of success and the Ifugao of the Philippines where land ownership has been concentrated and where the landowner is the ideal of success (Mead [*732, 733, 734, 735*]).

AN ALTERNATIVE

Raino (*845*) attempted to resolve the "situation-personality" controversy by suggesting that overt attempted or successful leadership behavior, per se, is a less consistent attribute of individuals than such traits as nonsuggestibility, energy, and maturity, which empirically and theoretically tend to be associated with overt leadership behavior. While this is a restatement of selected facts, it adds little. Raino agrees that some consistency exists in individual behavior transcending situations, but he fails to provide the means for handling the amount of change in consistency associated with the amount of change in situation—how systematic changes in the situation give rise to systematic changes in the "qualities" demanded of one who would be leader. Raino correctly regards situational variation of significance to leader behavior as multidimensional, but he pessimistically drops the possibility of systematic exploration of situational variation merely because of its multidimensional aspects.

A PROPOSAL. In the theory to be offered in this book, it is assumed that relatively few dimensions, such as interaction potential, motivation, and status differentiation, can account for most of the situational variation found in leadership and group behavior.

It is suggested that if we can determine some of the functional demands and limitations placed on a potential leader in different designated situations, and then determine the personal characteristics associated with persons best able to meet those demands and work within the limitations, we will be in a position to forecast the likelihood of success and effectiveness of each candidate for the leadership of a specified situation, knowing the specific characteristics of the situation and each candidate.

This systemization is attempted in the belief that a surplus of empirical evidence reached by inductive processes is available on the subject of leadership and group behavior, compared to verifiable deductions derived by logic from a basic set of postulates. It is hoped that an integrated theory will serve to connect empirical evidence, by means of psychological concepts at present somewhat disassociated, as well as to emphasize gaps in survey and experimental research.

BUILDING-UP FROM THE INDIVIDUAL

Why construct a theory of groups rooted in behavior of individuals?

Leadership and group behavior are under study by at least a dozen distinct disciplines such as psychology, sociology, anthropology, and industrial management. Interdisciplinary effort is the order of the day. Yet the present writer feels that it would be profitable to try to account for behavior in groups by means of concepts and postulates easily translatable into the terms of general psychology, rather than formulate an interdisciplinary account. Of course, understanding of a phenomenon can occur at many levels. Different models can be constructed to account for the same observations. Furthermore, understanding of the phenomenon is likely to be increased when investigators from different disciplines study the same phenomena. The results of these studies will provide useful hints and leads in the construction of a psychological theory, but generally these studies cannot help to test the adequacy of the theory based on behavior and interaction of individuals.

What then is the advantage of a theory of group behavior linked to general psychology, compared to a theory of group behavior which is interdisciplinary? Defining concepts and making assumptions conform to current theories of individual behavior permits us, at least, to borrow, by analogy, from what the general psychologist knows about manipulating the determinants of individual behavior. The system which grows out of our conceptualizations and explanations, if in conformity with behavior theories, will more likely be amenable to experimentation and replication by means of fairly traditional psychological methods and techniques. If the system concerning group behavior which emerges in parallel to general behavior theory appears to follow the same principles, it will encourage us to search for means of merging the systems to close the gap between general and social psychology.

The definitions of group leadership and control to be used in this theory and the implications that follow from these definitions illustrate these points.

EXAMPLES. Definitions of "group" can be clustered into six categories. We can define a group as a collection of persons in definite interaction, or as a collection with common goals, or as a collection with interlocking roles, or as a collection with shared norms, or as a collection with a shared perception of their unity. Most definitions of "group" do not appear to serve well in building a model for social psychology that can take advantage of current theories of learning. Moreover, they tend to

maintain analysis of group phenomena at a descriptive level. But if we conceive of groups as collections of persons, which collections are reinforcing to the membership, it is possible to proceed to deduce many theorems concerning leadership and group behavior—some of which have empirical foundation, some of which have not—but all of which are confirmable by survey or laboratory experiment. Moreover, this deductive system will be buttressed by what we know about behavior in general.

Similarly, if from the welter of definitions of leadership we accept one which defines leader behavior as behavior by one member directed toward the goal of changing another's behavior, we can begin to build a system parallelling behavior theories.

Students of politics and business organization have emphasized for 3000 years the coercive or authoritative aspects of leader-follower relations. Modern psychologists, on the other hand, have emphasized personal persuasion and—more recently—democratic-permissive leadership, generally ignoring the phenomena of authority associated with status differentiation. Sociologists have run the gamut from centering their attention on bureaucratic behavior where status hierarchies dominate, to focusing on the importance of the informal group, where status is homogeneous. The psychologist has only recently begun to explore status relations, control, coercion, and power of position. The psychologist can make his unique contribution to the study of social phenomena by attempting to understand these phenomena in terms similar to those used in current theories of behavior, by defining "status," "control," and "group" in a manner which will permit the construction of a *psychological* theory of organizational behavior. This may be done if "control" is defined as the ability to reward or punish, if "group" is defined as a reinforcing or rewarding collection, and if "status" is defined as importance of one's position to goal attainment by the need-reducing group.

To sum up, it is suggested that, given definitions of elements important to groups in terms of individual behavior, it is possible to construct orderly accounts of various human relations phenomena, which in time may be integrated with the central core of psychological knowledge about learning, perception, motivation, and biological status.

CHAPTER 2

NATURE AND PURPOSE OF THEORY

A plurality of causes is not to be assumed without necessity.
—WILLIAM OF OCKHAM, Summa Totius Logicae (A.D. *1324*)

This brief interlude on theorizing is presented so that the arguments of the subsequent chapters will be seen to conform to what currently appears to be the accepted approach to theory construction and evaluation.

In any science, our aim is to understand the phenomena we study. We understand a phenomenon when we are able to account for it by means of a set of principles, principles which are sufficiently general to apply in various combinations to other phenomena. We check our principles through testing the accuracy of our predictions, using the principles. Finally, we may achieve control over the phenomenon by appropriately using the principles. Understanding is minimum when we need a different principle to explain each observation. In accordance with the principle of "Ockham's Razor," we believe our understanding to increase as we find fewer and fewer principles necessary to account for more and more widely divergent effects. Understanding is minimal when we must invent a specific unique god or cause to account for lightning, and another unique god to explain the static electricity produced by stroking a cat's fur. Understanding increases when these and other electrical phenomena are described by the same set of principles.

We develop understanding in two ways: rational and empirical. A "rationalist" labels certain elements bearing some relation to observables within the phenomenon, makes certain assumptions about the interrelationships among the elements, and deduces principles or theorems from the assumed nature of the elements. The "empiricist" labels the observations and observes their interrelationships to see if they are sufficiently general to warrant using them as principles. The rational economist may assume that persons whose income is above a certain level, a level likely to satisfy their needs for comfort, will save money. These savings will be invested in increasing productive capacity, so the rationalist will deduce that expansion of productive capacity depends on maintaining a class in society who cannot spend their total income on consumption. The empirical economist observes a correlation between savings and income and between savings and investment and reaches the same conclusion as the rationalist.

Logical positivism has brought about a wedding of the two approaches. This marriage permits each approach to support (or refute) the other, providing us with greater confidence in our understanding.

LOGICAL POSITIVISM

In this system of thinking, there are two "planes," the plane of observables and the plane of concepts or constructs as shown in Figure 1. On the plane of observables are clustered together sets of "similar sense impressions," $A_1, A_2 \ldots A_k, B_1, B_2 \ldots B_k, C_1, C_2 \ldots C_k$,etc. A voltmeter reading, the glow of a light bulb, the speed of rotation of an electric motor, the distance a spark will jump, all might be such a set of similar sense impressions. The construct involved might be electrical pressure or voltage. Each of these impressions in a cluster is conceived to be a statistical function of the construct. The theorist makes this statistical correspondence known to the scientific public by an operational definition. Advancing a new theory thus involves the working out of these operational definitions as well as inventing a system of constructs (Frank [*361*]).

The clusters are not exclusive. Other sense impressions not yet known to the theorist may fall within the cluster that is operationally defined. The definition is partial, since other observables may be added later. Other A's, A_{12}, A_{13}, A_{14}, may be found which behave like A_1, A_2, and A_3 and therefore should be included in the cluster. For example, an-

other sense impression to include in the voltage cluster might be the amount of heat resulting from moving a rheostat in one direction or another to change the resistance of the circuit.

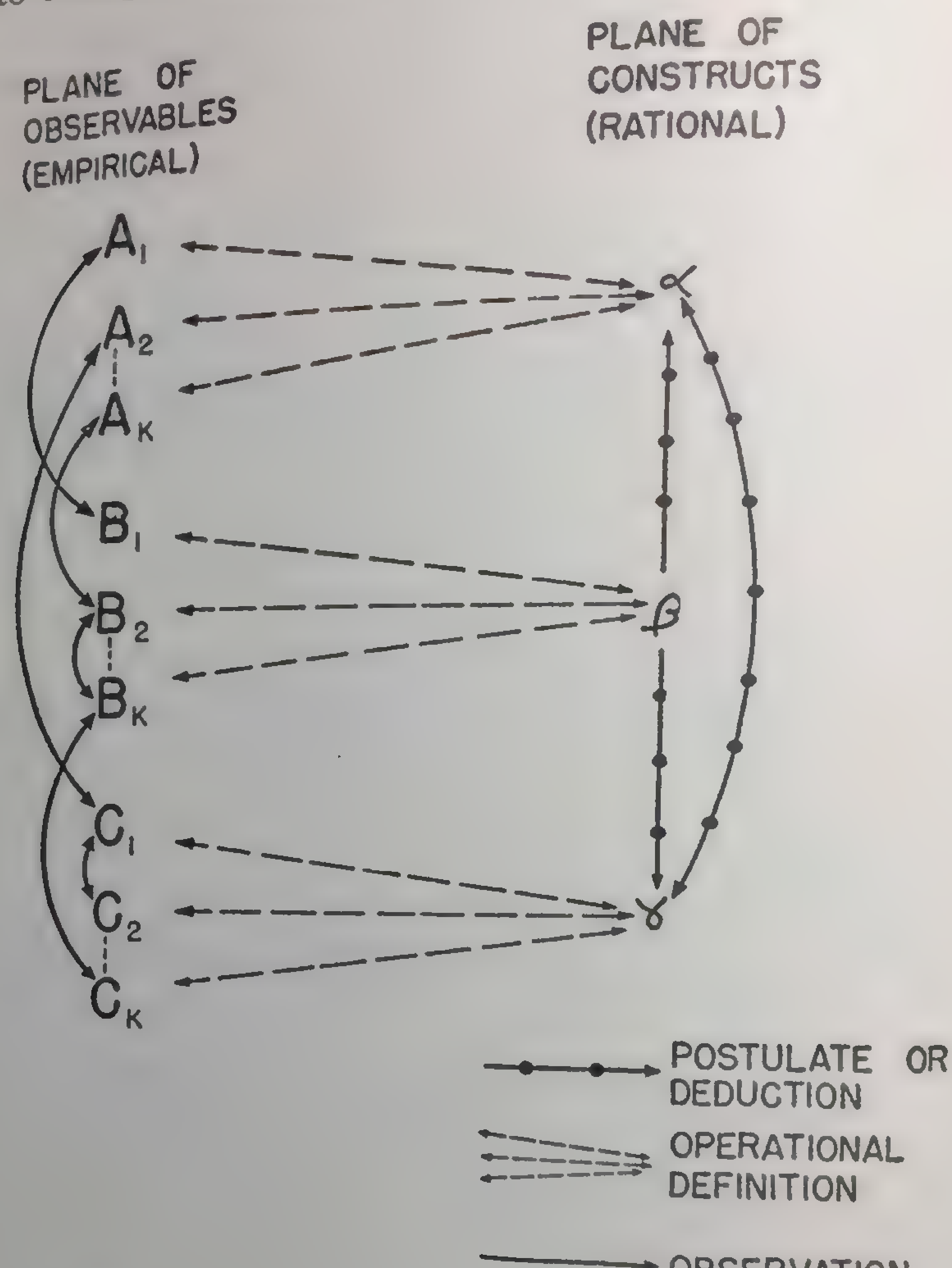

FIGURE 1. Schematic of a Logical Positivistic Approach to Understanding.

The clusters may be regarded as variables highly loaded on the same factor. Factor analysis thus is one important source of constructs.

The postulates, the assumed relations between the constructs, may be expressed symbolically or verbally. This is true also for the theorems, the deduced relations between the constructs.

We are shocked as we short a circuit. We feel the heat generated by an electric light bulb. We cannot communicate readily or simply how the shock, as such, was related to the feelings of heat. We must use con-

structs to account rationally for relations since "we cannot reason about our sense impressions" (*764*). But we check our rationale by seeing if we can observe (usually in controlled experiments) the correlations and interactions between the clusters of observables that correspond to the supposedly related constructs.

OPERATIONAL DEFINITIONS. According to Morganau (*764*), the rules of correspondence between observations and constructs are no longer isomorphic. Rather, they are "umbrella-like" statistical functions. For example, we state we are measuring successful leadership behavior by *A* when *A* and *B* agree following discussion although they disagreed initially and *B* changed his position but *A* did not. We also may be measuring some chance effects, as well as some change in *B* related not to *A* but to *C*'s behavior.

Reichenbach, Bridgeman, and many others emphasize the critical importance of the "bridge between the system and the protocols of the laboratory." Operational definitions connect a system of constructs having exact logical coherence with the world of facts. The facts are described with a certain vagueness. The definitions participate in the preciseness of the construct and the vagueness of the observable facts (Frank [*361*]).

There are other criteria to guide the definitions we will propose:

1. We can define hypothetical observations impossible to obtain at the moment.
2. The operations of the definition should be sufficiently definite (and quantitatively precise, if possible).
3. The operations should be naturally and technically possible.
4. The operations should be objective and repeatable (Feigl [*311*], p. 258.

The operational definitions and their meanings to the scientific public are critical for empirical verification of the adequacy of the theoretical model developed to account for the phenomena under study. But their meaningfulness to the public has nothing to do with the validity of the deductive proofs of the relations between the constructs defined by the operations.

If the definition of leadership used in this theory means influence or dominance to you and not leadership, then you are being provided theorems about influence or dominance. The validity of the deductions applying to leadership in this book will apply, for you, for influence or dominance.

CHOICE OF CONSTRUCTS. It is possible to apply different "fictions" to describe the same phenomenon. The Newtonian "fiction" using gravity as exerting force at a distance has been superseded by Einstein's "fiction" that the path of each planet is a space-time geodesic varying around the planet according to the mass of the planet.

Bacon, the empiricist, described Copernicus as a man who did not care what fictions he introduced providing his calculations answered. Both Copernicus' and Newton's "fictions" were judged by their contemporaries in terms of Aristotle's philosophical "truth." One hundred years later, Newton's fictions were the "truth, the real world against which new constructs were now judged." Today, Newton's fiction that masses attract at a distance is real—or common sense—for most people, while Einstein's warped space is a "fiction." One hundred years from now, the space-time geodesic may be "real." Thus common sense and reality or truth often mean constructs from an earlier stage of scientific generalization (Kline [*615*]).

Our choice of constructs for a theory of group behavior will not be dictated necessarily by surface or common-sense observation. We propose to attempt the creation of constructs to provide a more analytical discourse. We hope to avoid, if possible, much of the metaphysics in present thinking about group behavior, which may be described as translation by remote analogy into everyday language of generalizations in other areas. Needed are clear, definite, unambiguous constructs, linked by operational definitions to the empirical world rather than restatements of common-sense observations, as such.

> Indeed, if either Copernicus or Kepler had been . . . what the world calls sensible men, they would never have stood their ground. The scientific objections to a moving earth were numerous. Neither man could explain how the heavy stuff of Earth could be started in motion . . . why doesn't the Earth itself fly apart in pieces . . . why doesn't the Earth leave behind objects of lesser weight . . . a moving Earth calls for motion of the stars relative to the Earth. But observations by men of the sixteenth and seventeenth century failed to detect this relative motion . . . If Copernicus and Kepler had been more 'sensible, practical' they would never have defied their senses . . . In the words of Henry More, "sense pleads for Ptolemie!" (Kline [*615*], pp. 112–120).

A practical man is one who says, "The kind of generalization that most learning theorists are using is not the kind of generalization which

can be applied to the behavior of actual people in social situations" (Snygg [*968*], p. 131). Yet the Renaissance astrologer did not find that Copernican theory lent itself to everyday affairs like deciding on the propitiousness of a given day for a new venture. It is doubtful if Newton's principles of motion helped the eighteenth century stagecoach driver to improve his service. Friedrich Hegel's comment is instructive: "Amid the pressure of great events, a general principle gives no help."

Much of past theory and explanation of behavior in groups no more accounted for group behavior than Plato accounted for the Earth's maintaining its fixed position in the center of the universe by stating that "a thing in equilibrium in the middle of any uniform substance will not have cause to incline more or less in any direction."

To illustrate: a powerful person is defined as one who is influential. Members are asked to identify who has influenced them. These are labeled "powerful" people. Powerful people are observed to be more successful in leading the other members. A principle is formulated that power, as defined here, yields successful leadership. Yet all that was observed is that members and observers agree in describing who influenced the members. The superficial definition of power has led to a superfluous "principle."

Constructs must be abstracted and idealized to provide sufficient generality.

> Galileo's . . . very first principle (on the inertia of mass) is in contradiction with . . . Aristotle. Does this mean that Aristotle made obvious blunders or that his observations were too crude or too few to yield the correct principle? Not at all. . . . Aristotle was a realist and taught what observations do suggest. Galileo idealized the phenomenon by ignoring some facts and favoring others. . . . By ignoring friction and air resistance and by imagining motion to take the place in a pure Euclidean vacuum, he discovered the fundamental principle (Kline [*615*], p. 190).

But which construct shall we choose? Selye (*927*) suggests, "The best theory is that which necessitates the minimum number of assumptions to unite the maximum number of facts, since such a theory is most likely to possess the power of assimilating new facts from the unknown without damage to its own structure" (p. 631).

Certain other criteria for choosing constructs include:

1. *Logical fertility.* The construct will fit in logically with other constructs.

2. *Extensibility*. The construct will apply to a range of observables such as A_1 to A_K rather than to only one observable, A_1.
3. *Multiple connections*. The construct links with several other constructs rather than just one other.
4. *Causality*. A rationale can be developed deducing the effects of one construct on another.
5. *Elegance and simplicity*. The construct is a parsimonious choice permitting the accounting for a maximum number of observables with the simplest structural relation between the constructs (Morganau [*764*]).

The choice is clearly not merely a function of the already observed facts. ". . . Ptolemaic theory also offered mathematical laws of the universe and . . . Copernicus and Kepler did agree that . . . either theory could be true because both were good geometry. But the new theory was mathematically simpler and more harmonious" (Kline [*615*], pp. 112–120).

While the geocentric theory was more convenient for deducing the facts involved in everyday experience, the number of facts covered was very limited. To account for more, such as the phenomena of perturbation, a more "artifical" theory, the heliocentric, was needed.

POSTULATES. In developing a theory, we shall first define the concepts we propose to use. Then we shall postulate some relationships among these concepts. Wherever possible, we will cite presently available information to support the "self-evident" nature of the postulates, or else show that the postulates are regarded as valid generalizations in other areas of investigation—primarily in learning and motivation. Our postulates will be as simple as possible, so that it will be easy to perceive on what we must agree without deductive proof. The few postulates should be fertile in producing theorems and should not be deducible from preceding assumptions or theorems.

DEDUCTION. Following the description of the postulates necessary we will attempt to deduce theorems to provide hypotheses to be verified through survey or experimental techniques.

Several points must be made clear. In a number of instances, we have found evidence in the present literature to support theorems after they were first deduced by the theory, yet much of our theorizing has been *a posteriori*. That is, in selecting our concepts and in guiding our derivations, we have kept in mind the available empirical evidence. Wherever the evidence was firmly contradictory to a possible series of

concepts and hypotheses, we have rejected them and turned to other alternatives. Thus, our theory is one which attempts to fit presently available facts. Merely doing this is not a true test of its utility. Rather, the accuracy of its predictions concerning future experiments, for the most part, remains to be tested.

As Kline (*615*) points out, we do not deduce a host of theorems *ad infinitem,* although occasionally we arrive at a theorem for which there is no previous experience one way or another. The theorems to be derived are suggested by random observation, available experimental generalizations, analogy, insight, chance, guesswork, and blundering about. "Logic . . . sanctions the conquests of intuition. It is the hygiene . . . to keep . . . ideas healthy and strong. It helps to substitute intuitions more consistent with the mass of ideas than currently stated thoughts" (Kline [*615*], p. 408).

Some of our postulates will be drawn from generally accepted empirical principles from other areas, such as the empirical law of effect. Some of our theorems that we subsequently "derived" were originally suggested by analogy also. The critical thing in using analogy is identifying the elements in the unknown area in which you are theorizing and the matched elements in the known area. Once this is done, then "what principle can guide one more quickly than analogy into the first trial ideas of a new subject?" (Wheeler [*1106*], p. 370). To permit the maximum gain from analogy, we propose to identify elements in the group situation in terms of individual members and their interrelations so as to permit transfer of ideas from what we know about the psychology of the individual to the psychology of what we do not know about the individual as a member of a group.

In constructing the theory, we have been guided by the mathematician E. H. Moore's "Sufficient unto the day is the rigor thereof." We believe the present state of the behavioral sciences is such that a useful behavioral theory today must be a relatively simple one. It should consist of simple constructs, axioms, and theorems with not too great a demand for rigor—no more rigor than was demanded of Copernicus, who could assume circular planetary orbits when they much more closely approximated ellipses.

As Selye (*927*) noted, our facts must be correct; our theorems need not be if they help us to discover new facts, even if these necessitate some changes in the structure of theory. Homans (*537*) goes one step

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In constructing the theory, we have been guided by the mathematician E. H. Moore's "Sufficient unto the day is the rigor thereof." We believe the present state of the behavioral sciences is such that a useful behavioral theory today must be a relatively simple one. It should consist of simple constructs, axioms, and theorems with not too great a demand for rigor—no more rigor than was demanded of Copernicus, who could assume circular planetary orbits when they much more closely approximated ellipses.

As Selye (*927*) noted, our facts must be correct; our theorems need not be if they help us to discover new facts, even if these necessitate some changes in the structure of theory. Homans (*537*) goes one step

further: "To overcome the inertia of the intellect, a new statement must be an overstatement, and sometimes it is more important that the statement be interesting than that it be true!" (p. 329).

The goal of simplicity is congruent with the purpose of theory-building: to promote understanding.

PURPOSE OF THEORY

Paradoxically, a satisfactory theory begins to be modified almost as soon as it is concluded; an inadequate one more often lasts unchanged for centuries.

Yet the constancy of phenomena and relationships are what is important, not what we think about them. "Franklin found that lightning was a manifestation of the electric ether revealed in laboratory experiments. The electric ether has disappeared . . . but the relation between lightning and laboratory sparks remains" (Dingle [*275*], p. 40).

Witness the attitudes of Mach and Goethe:

MACH: Theories are like withered leaves, which drop off after enabling the organism of science to breathe for a time.

GOETHE: Hypotheses are the scaffolds which are erected in front of the building and removed when the building is completed. They are indispensable for the worker; but he must not mistake the scaffolding for the building (Frank [*361*], p. 62).

But data collection in the absence of theory may be almost meaningless activity. Theory guides us in suggesting what we should measure. "Studies based on myopic operationism are largely wasted effort when the operation does not correspond to potentially meaningful constructs. Defining a measure operationally is only a preliminary to analytic studies which can define the measure and bring it closer to the intended construct" (Cronbach [*250*], pp. 177–178).

There are those whose first and last response to every attempt at theory construction is, "It's pouring old wine into new bottles." Theory constructing is very definitely a matter of pouring old wine in new bottles but it is much more; ". . . new ideas must have a rich texture of connection with sound old views. . . . New ideas must correspond with old ones, must include them, but also must transcend them" (Wheeler [*1106*], pp. 372, 374).

Writing about "good" theories, testable ones, Poincaré noted, "At first glance it appears to us that theories last only a day and that ruins

heap upon ruins. . . . If we examine the matter more closely, however, we find . . . that if one of these has revealed to us a true relation, this relation has been acquired for all time. We shall find it again under a new cloak in other theories which will reign successively in its place (Frank [*361*], p. 69).

Theories may also be dismissed as a scholastic disguise of the obvious. Here, the late L. J. Henderson's comments seem in order.

> Some readers will think these theorems obvious and feel them accordingly unimportant. Well, the experience of all highly developed sciences shows that the clear explicit formulation of the "obvious" and its incorporation in the systematic treatment of a subject is both necessary and very convenient. . . . The obvious has sometimes been defined as an important proposition that we wish to disregard (Henderson [*506*], pp. 25–26).

THE PROCESS OF THEORIZING

By the way of summary of this section, let us examine the actual order of precedence in theory construction and fact-finding.

Theorization is not done in a vacuum. It is an ongoing process.

We get some hunches. We try them out. If they do not fit the data, we usually, although not necessarily, discard the hunches.

Gradually, we build up a core of postulates and concepts that have led to propositions that account for a good deal of the already available empirical data. Finally, we develop enough deductions about which there are no empirical data, as yet. Some may actually be new propositions; but, more likely than not, we discover to our chagrin in a survey of the literature that some author has reached the proposition earlier by intuition or common sense. It may be surprising to find that Aristotle's *Politics* antedated by 2500 years Herbert Thelen's (*1022*) deductions concerning the optimum size of a group, or that Caesar's *War Commentaries* preceded by two millennia Mapheus Smith, John K. Hemphill, and others concerning the conflict faced by leaders in their need both to initiate structure and be considerate at the same time.

Thus, in the beginning we do apply common sense and intuition and attempt to formalize our success in terms of a system. But as we continue to do this, we gain sufficient confidence to begin taking chances on deductions about which we have no immediate empirical evidence. If we search long enough in the wisdom literature, we are usually able

to find that the deduction was obtained by someone earlier, by intuition. However, along with this proposition we usually find that our predecessor has added many erroneous or contradictory statements, so that his shot-gun blast of common-sense propositions does not reduce the significance of the contribution of the "rifle shot bullseye" by the latter-day model builder aiming at the same target.

EMPIRICAL TESTS

Dynamics is the study of interacting systems. To describe dynamics adequately, it is necessary to determine at least two values: initial positions of the systems and a rate of change in the positions.

To be operational, dynamic definitions in a theory of behavior in groups must specify what shall be measured initially and how the rate of change will be calculated. For purposes of discussion, we will state that *A* has led *B* if following interaction *B* shifts in a direction desired by *A*. For purposes of laboratory experimentation we will offer the almost equivalent operational definition that *A* has successfully led *B* the more *B* has changed decision, compared to *A*, and the more *A* and *B* have increased in agreement. We also state (elsewhere) a specific set of rules for calculating these values (see Bass, Pryer, Gaier and Farese, [*85*]). We believe our other definitions are stated so that they also will be translatable into operational definitions.

GENERALITY OR SPECIFICITY? The results of specific overt behaviors, if adequately measured in a simulated situation, may be quite generalizable to more realistic situations. Thus, Aikman, Lorge, and Tuckman (*8*) found that the quality of written solutions to a problem was not affected by the mode of presenting the problem. The problem was to develop a plan to get a group of five men across a mined road. It was presented verbally, photographically, by a miniature scale model not allowing manipulation and by a scale model which permitted manipulation of objects.

If we insist on definitions which can be expressed in terms of laboratory or field operations, will we end with a highly restricted, limited system? Paradoxically, this insistence will foster generality, while the case history approach at the other extreme can provide only a restricted, limited description.

If the aim of research is to predict the behavior of specific people in specific circumstances then the more closely the situation studied corresponds to the

situation to be predicted, the more successful the effort should be. Thus for testing specific hypotheses, stated in concrete terms, a field situation that closely corresponds to the one in which the hypothesis was generated probably offers certain advantages. If, on the other hand, the aim is rather abstract formulations of relationship among theoretical variables which may take many concrete forms, it seems unlikely that studying complex concrete situations is the most expeditious route to the goal (Christie, Deutsch, *et al.* [*221*], p. 39).

The critical thing is for us to *abstract* the elements from "real life" and reproduce these abstracted elements in the laboratory.

In going from field to laboratory, or vice versa, it is not always desirable to demonstrate phenomenal similarity between the situations being studied; in fact, such "face validity" may actually be restrictive. One usually learns more from cross-testing in situations that are *phenomenally different* but *conceptually parallel.* An exact phenomenal replication, in the laboratory, of a field situation tends to yield minimum information, but the greater the phenomenal difference, the more one can learn about the power and generality of his theory (Christie, Deutsch, *et al.* [*221*], p. 42).

If we can attain a really high degree of generality in our conceptualization then it should be possible to refine our laboratory methods to increase their rigor. We may also be able to make more use of animals as subjects. As Scott (*919*) notes, most studies of leadership have been made among human peer groups, where little differential reward opportunities exist. We will emphasize the reward-punishment aspects of leadership. This may provide a means of using animals profitably as subjects for leader behavior in studies providing generality of results.

In presenting the theory we will bolster our deductions with empirical evidence and opinion drawn from studies that have employed a wide variety of techniques including assessment of biographical data analyses; case history analysis; observation of behavior; products of behavior; identification of traits and behaviors of leaders; and comparison of persons of varying status or esteem by means of psychological tests, observation, interviews, rating scales, and questionnaires. But the empirical verification will require laboratory, field, or survey studies specifically generated by the theory. Such studies have been in progress since 1954. It is hoped that complete publication of these will be possible within a few years after the appearance of the present text.

THE THEORY IN BRIEF

The theory to be presented begins in Part II with a consideration of groups as rewarding collections of people. The more rewarding a group, the more it is effective; the more reward anticipated from membership, the more the group is attractive. Actions by the effective leader result in more reward or less punishment. Experience of members with effective leaders results in the members following such leaders in the future. *Effective* leaders of the past are likely to be *successful* in the future. Furthermore, likelihood of success promotes subsequent attempts to lead (Part III). The more able member is likely to lead effectively, hence successfully. Members with ability relevant to solving the group's problems (but not too much ability) are likely to *persuade* others successfully (Part IV). Members, by virtue of their position or personal attributes, may also have the power to reward or punish others directly. The promise of reward or threat of punishment can be used to *coerce* others successfully. When the promise or threat is made to come from the group or is used in limited restrictive ways, the leadership is permissive. But both coercion and permission require power. Conformity can be understood in these terms (Part V). Status, the value of one's position and esteem, one's value as a person, are sources of both ability and power. When status and esteem are incongruent, conflict arises (Part VI).

The last portions (Part VII) of the theory deal with how group size, proximity of members, communications, familiarity, mutual esteem, homogeneity, and other group variables contribute to the potential of any two members to interact. In turn, changing interaction potential results in a change in effectiveness. Formal organization, cross-training, splintering, and a variety of other procedures are introduced to overcome the ineffectiveness resulting from reduced interaction. Finally, leadership in emergencies can be accounted for from what we know about interaction potential.

PART II

ATTRACTIVENESS AND EFFECTIVENESS

What is a group?

What is the purpose of a group?

What is group effectiveness and group attractiveness?

How are task and interaction effectiveness related?

Is immediate or ultimate effectiveness more significant in understanding group behavior?

Why must goals be relevant before understanding of group behavior can be promoted?

Is morale simple or multidimensional?

How is attractiveness related to concepts in theories about individual behavior?

How is attractiveness measured?

What is the relation between attractiveness and clarity of the group's goals?

What is the relation between attractiveness and common purposes?

Why are we attracted to groups?

How does effectiveness affect subsequent attractiveness?

How does attractiveness affect subsequent effectiveness?

CHAPTER 3

GROUP EFFECTIVENESS

A Lion used to prowl about a field in which Four Oxen used to dwell. Many a time he tried to attack them; but whenever he came near they turned their tails to one another, so that whichever way he approached them he was met by the horns of one of them. At last, however, they fell a-quarrelling among themselves, and each went off to pasture alone in a separate corner of the field. Then the Lion attacked them one by one and soon made an end to all four.

—Aesop's Fables (ca. *600* B.C.)

THE CONCEPT OF GROUP

The fable illustrates Aristotle's dictum that the object of every association is some good. And for us, what distinguishes a group from a mere collection of people is its purpose. We define "group" as a collection of individuals whose existence as a collection is rewarding to the individuals. Whether or not the group is of importance to nonmembers will not be considered here. Members are held in the group because remaining in it earns for them such incentives as material comfort and security and/or enables them to avoid tissue injury, harm, blame, or other unsatisfying states of affairs which would occur if they left the group.

While other investigators may debate the judiciousness of this definition of "group," there can be no quarrel concerning the meaning of the label. Others may not accept what we choose to call "groups" and

what we choose not to call "groups," since at least five distinct types of definitions of groups are available. But each investigator has complete freedom to define and label operations as he sees fit. The acid test of the adequacy of definitions lies in demonstrating their utility and convenience in theory construction and in the evaluation of the theory by empirical operations.

The definition of "group," like others to be offered, is partial; there may be other ways to infer the existence and variations in the concept. Thus, we define "group" by one means, while suggesting that many other means are probably available that will lead to calling certain things "groups," and other things "not groups."

SELECTION OF THE DEFINITION. The definition has been selected with a particular purpose in mind. It will permit us to make use immediately of the law of effect to derive our first theorems about group behavior. It will fit with our attempt to discuss leadership as a consequence of reinforcement. It also requires that a minimum of surplus meanings be attached to it and to the definitions that follow. It appears to conform with evidence concerning the origin and emergence of groups and leadership from mere collections of people. It also enables us to deal parsimoniously with animal groups even where the behavior is "built-in." Incentives to action in natural animal groups often concern mutual protection. But the "interaction for security" may be an innate consequence of evolution. For example, when one minnow is caught by a perch, the others disperse. Why? The skin of the killed minnow releases a chemical substance which causes avoidance behavior in the others.

A swarm of moths around a light is a mere collection gathered because all moths are all attracted to the same stimulus. There is no connection between the collection of moths, as such, and the stimulus-response patterns. But the lamb and its mother form a group. While lambs suck instinctively, sucking also satisfies hunger. In turn, the mother gains relief from mammary gland tension.

SIMILARITY OF THE PRESENT DEFINITION TO OTHERS. Our concept of the group is shared by numerous other investigators. "Every group exists as a means of satisfying certain purposes, wishes or interests, of furnishing goods or values, to its members" according to Sanderson ([*901*], p. 25). For Deutsch (*268*), a group exists to the extent that the individuals composing it are pursuing promotively interdependent goals. According to Cattell (*204*) a group is an "aggregate of organisms in

which the existence of all is utilized for the satisfaction of the needs of each." In Parsons' (*803*) theory, social systems must provide the satisfaction of the minimum biological and psychological needs of the members of the system. Gibb (*402*) conceived groups as mechanisms for achieving individual satisfaction through interaction. In the functional school of social anthropology as exemplified by Malenowski, all elements of society are interrelated to meet the needs of individual members and contribute to the survival of the society. Rules, ritual, and magic develop to satisfy needs which cannot be coped with alone by members (Homans [*537*]).

SURPLUS MEANINGS. For purposes of definition, the many other characteristics ascribed to groups are surplus. Perceived unity is one of these. Aristotle applied Socrates' test of unity to his concept of group. All members of a group are those who term the group "mine." While many or even most groups, as we conceive them, may have a shared perception of their unity, this is not an essential condition nor does it contribute to our analytical account of group behavior. Sherif (*949*) found that by making goal attainment dependent on the efforts of both, he could make two competing collections of boys coöperate as one unit, although two distinct aggregates were perceived by the boys. We would describe this situation as one in which the two collections had merged temporarily into one group.

Many theorists have emphasized that members must have common goals to form a group. For example, Freeman (*362*) stated that persons with common goals unite to realize their goals. Yet we can conceive of collections of persons who share common goals, which collections are not groups and, more important, do not show the behaviors common to what we refer to as groups. The collection with common goals only becomes a group when the collection, as such, is potentially rewarding. For example, a collection of prisoners may all have the common goal of escaping but may regard each other as stool pigeons. The collection builds tensions, and does not increase the promise of escape. The behavior of the collection will be very different from the behavior of a group of prisoners who view each other as potential help in an escape effort.

Others such as Eubank (*300*) have emphasized that an essential feature of a group is that its members be in definite interaction, usually face to face. Other requirements have been that groups have inter-

locking roles (prescribed patterns of behavior) and shared norms (common standards of behavior) (Hiller [*518*]; Newcomb [*784*]). Yet, as we define "group," the many stockholders in a company may comprise a group viewing each other with alarm if a sudden spurt of stock selling occurs, or with satisfaction if selling is slow despite a falling market. Yet the stockholders do not necessarily play interlocking roles or share common standards or perceive any unity or interact with each other. Any of these "surplus" conditions can vary in amount and degree within groups. However, their presence or absence will not be necessary before we say a collection of individuals is a group.

Cattell (*204*) gives an example of a collection of persons we find it useful to define as a group, yet the five conditions of definite interaction—common goals, interlocking roles, shared norms, and shared perception of unity—are absent. Two swimmers, each a mile off shore and a mile apart, form a group in that the sight of one swimmer provides security for the other and vice versa. They never interact, may be out swimming for entirely different purposes (one for exercise, the other for excitement), and do not necessarily agree on the roles each plays nor share any standards.

EFFECTIVENESS AND ATTRACTIVENESS

Groups vary in the extent they are rewarding to members. The extent they reward is their *effectiveness*. Groups also vary in the extent they are expected to reward. The anticipated goal attainment is the *attractiveness* of the group. A potentially rewarding group is attractive; a group which actually rewards its members is effective.

Groups cease to exist and become collections when their attractiveness approaches zero. With additional effort, the collection itself will disband. (The individuals may remain assembled since it takes some motivation to withdraw, but group activity and change will be minimal at this point.) It is also conceivable that individuals may become satiated with the rewards resulting from membership in a group, resulting in their withdrawal from the group.

Groups displace individual isolated activity because groups tend to be more effective. All other things being equal, humans and their immediate mammalian predecessors would probably have never formed groups—other than mother-child or temporary sex-partner groups—since there is no known direct physiological drive among humans

which leads to gregariousness, per se, other than sucking in the infant, mammary tension in the mother, contact comfort, and the sex drive. That the group brings greater rewards (effectiveness) than individuals in isolation is attested to by a large number of experimental comparisons detailed in Chapter 4. Although many factors are known which reverse the effect, groups have generally been found superior to individuals.

"Morale" has been used by others to label what we have defined as group effectiveness and/or group attractiveness. For Gordon (*427*), morale is the degree a worker is satisfied his needs are being met on the job. On the other hand, Smith and Westen (*966*) define morale as satisfaction with and desire to strive for the goals of a particular group. Child (*217*) suggests that morale both involves motivation toward and confidence in gaining the goals of the group (attractiveness) and a "condition of well-being" enabling hopeful effective work (effectiveness). While we will attempt to describe more precisely the phenomena involved, using the more specific concepts of effectiveness and attractiveness, we will infer that groups are likely to be attractive, effective, or both, if described by other investigators as having high morale.

GROUP EFFECTIVENESS

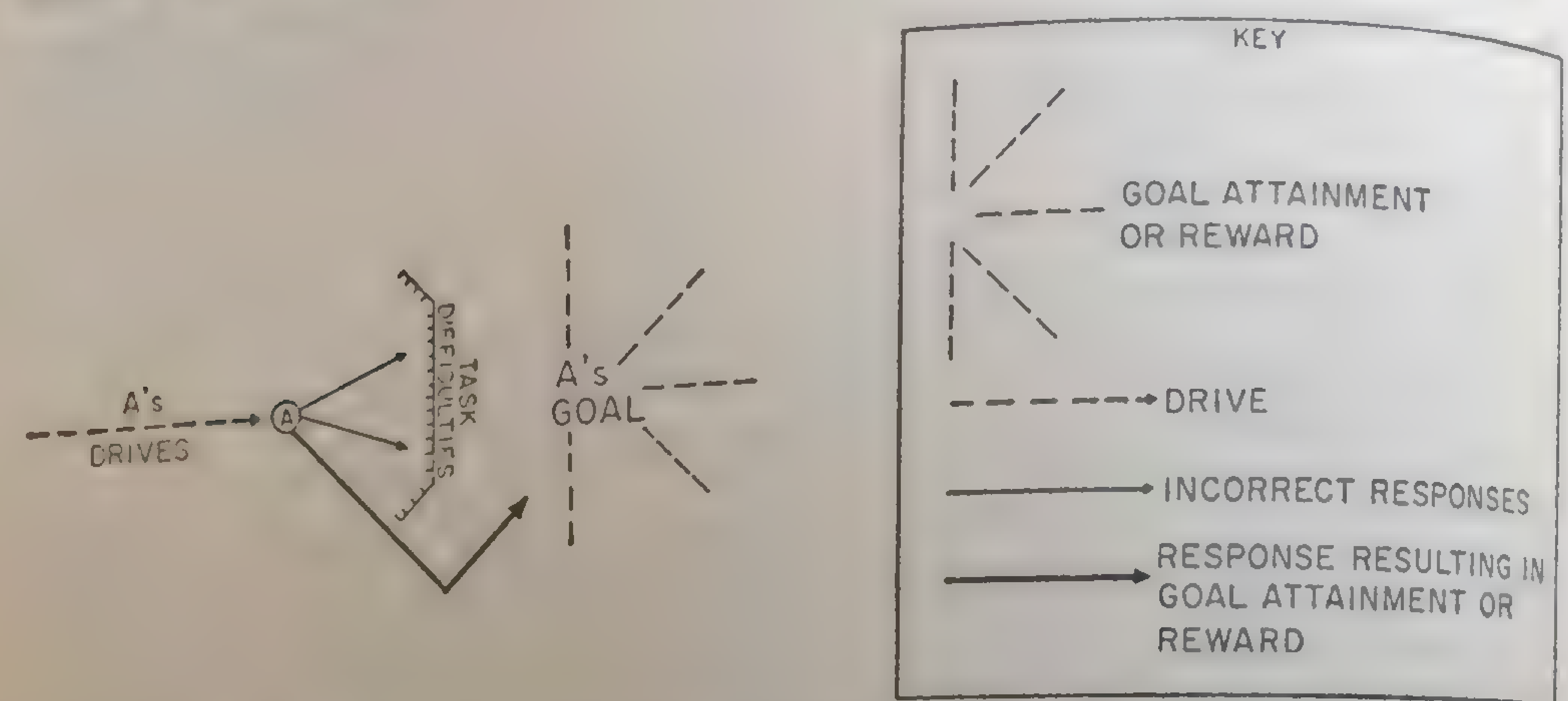
The source of reward or reinforcement may be the *task* or the interaction among members. It may be *immediate* or *delayed* for long periods. The observed goal attainment may be *relevant* or *irrelevant* to the membership. Reinforcement may occur *partially* or *totally*. Groups can be described as varying in task effectiveness, interaction effectiveness, immediate effectiveness, ultimate effectiveness, relevancy of goal attainment, and in the extent behavior in the groups is reinforced partially or totally.

INDIVIDUAL AND GROUP PERFORMANCE

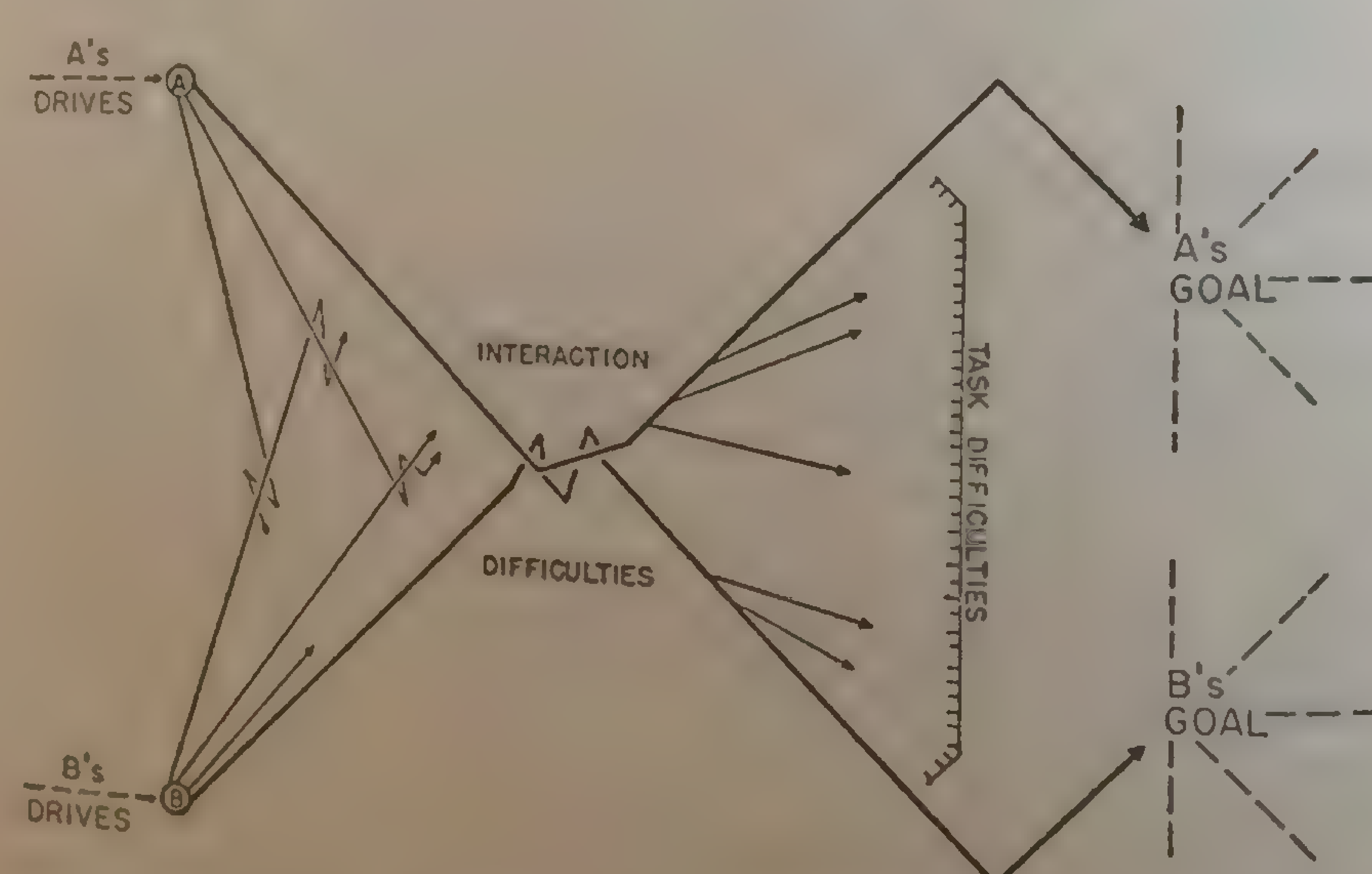
In Figure 2, we conceptualize group learning or performance by building on the schematic of individual behavior in the face of problems.

When presented with an obstacle in his path to a goal, the single individual attempts a variety of responses limited by his past learning, his brainpower, and situational restrictions. The response yielding the goal will be reinforced. The other responses will not be reinforced. If

presented again with the same problem, the individual will be more likely to make the reinforced response and less likely to make the others. The individual will have changed his behavior.



THE INDIVIDUAL PROBLEM SOLVING SITUATION



THE GROUP PROBLEM SOLVING SITUATION

FIGURE 2. Individual and Group Problem Solving Situations.

We conceive of two sets of barriers between individuals and their respective goals when the problem requires that they coöperate as a

group to achieve their respective goals. First, they usually must "straighten out" the human entanglements to successful interaction; second, they must adequately perform their respective activities yielding completion of the task. Solving the problems of interaction yields rewards, particularly to those who are interaction-oriented, and may be independent of task success and its rewards. But such interaction effectiveness often is necessary before the group can concentrate on task success. Thus, Gibb, Platts, and Miller (*404*) suggest that before trying to solve a new group's problems, we need adequate "getting-acquainted" periods; we must promote pleasant interpersonal relationships permitting the shift from interpersonal problems to group task goals. Conducive procedural arrangements must be provided. Given a task requiring a high degree of coördination and coöperation, it would appear that group task effectiveness can only occur if first the group's interaction is effective. If relatively little interaction among members is demanded for task success, then it should be possible to observe little interdependence of task and interaction effectiveness. If they are completely independent, however, one may suspect he is dealing with a collection of isolated workers rather than a true work group.

Keep in mind the problem of relevancy of goals. The productivity of a group may not necessarily measure group effectiveness if the members are not rewarded for high productivity. Productivity may even be negatively related to effectiveness. We may observe a harmonious, highly interaction-effective group of saboteurs "delightfully" effective in *lack* of productivity. Relevancy will be treated in detail later.

TASK EFFECTIVENESS

Ignoring for the moment the matter of relevancy of goals, some ways group task effectiveness can be measured include (1) the observed amount members reach their goals with a minimum expenditure of time and energy; (2) the degree of satisfaction members express concerning the group's products and decisions; and (3) the quantity and quality of productivity, rewards earned, and punishments avoided.

Gibb (*402*) mentions as possible measures of task effectiveness the number of ideas produced, quality of the ideas, decision speed, scores on objective examinations, winning of games in competition with other groups, and satisfaction with the decision. Peterman (*819*) used this

last criterion as a major index of conference task effectiveness. The extent conferees were satisfied with the decisions reached, in turn, correlated .34 with the number of agenda items completed and .68 with a conferee's satisfaction with his own work at the meeting. The more time spent per substantive topic, the less satisfied were conferees with the group's decisions. Total conference time was an ambiguous criterion, for while generally negatively related to satisfaction with decisions, it was positively related in a pleasant, friendly atmosphere. We may be happy to waste time with a group of friends. On the other hand, rapid decision-making may reflect apathy, not efficiency.

Another of the measures mentioned by Gibb was developed by Havron (*482*) who demonstrated that it is possible to construct reliable and valid proficiency tests to evaluate the effectiveness of infantry squads in the field.

INTERACTION EFFECTIVENESS

Interaction effectiveness can be assessed by (1) observed amount of harmony and absence of conflict; (2) expressed satisfaction of the members with the interaction; (3) congruence of actual or perceived relations between members with the relations the members desire.

Massarik, Tannenbaum, *et al.* (*726*) suggested examining within an organization the formally prescribed relations or interaction, the relations perceived by the members, the actual observed relations, and the desired and rejected relations. Various indices of satisfaction with the interaction, per se, could be derived by contrasting actual and perceived interaction with what is formally demanded and with what is desired. Satisfaction would be low if a large discrepancy existed, say, between desired and perceived interaction.

One method of assessing interaction effectiveness is Bales' (*48*) interaction process analysis. Interaction effectiveness would be reflected among groups who exhibited a great deal of the categorized behavior described by Bales as showing solidarity, raising others' esteem, giving help and reward, showing tension release, joking, laughing, showing satisfaction, agreeing, accepting, concurring, and complying. Interaction ineffectiveness would be characterized by disagreement, rejection, withholding help, withdrawing, showing antagonism, deflating others' esteem, acting defensive or self-assertive.

In an iterative factor analysis of 490 questionnaire descriptions of air

crews, Rush (*895*) uncovered a *harmony* factor which he described as dealing with the presence or absence of conflict among crew members and the compatibility of relationships, and possibly representing a general or halo factor reflecting whether the rater likes or dislikes the group. Rush's analysis suggests the possibility of obtaining a relatively pure measure of interaction effectiveness by descriptive techniques.

SIMILAR TERMS. Conceptions of morale have often included what we mean by interaction effectiveness, usually without the implications of reward assigned to interaction effectiveness. On a more descriptive level also are Hemphill and Westie's (*505*) concepts of *viscidity* and *hedonic tone* and corresponding concepts by Cattell and Stice (*207*). These also contain elements similar to what we mean by interaction effectiveness.

Viscidity has been defined by Hemphill and Westie as the degree to which members of a group function as a unit. It is reflected in absence of dissension and personal conflict among members, by absence of activities serving to advance only the interests of individual group members, and by the ability of the group to resist disrupting forces. Interaction effectiveness has similarities to *synergy,* defined by Cattell and Stice as the ability of a group to resist disruption. If most of the synergy, can be expended on the task, the group shows a high degree of interaction effectiveness.

Hedonic tone (Hemphill and Westie [*505*]) is the degree to which group membership is accompanied by a general feeling of pleasantness and agreeableness. It is reflected by the frequency of laughter, conviviality, pleasant anticipation of group meetings, and by the absence of griping or complaining. Hedonic tone, for Cattell and Stice, refers to success, harmony of internal relations, cheerfulness and absence of destructive criticism and complaints (*207*).

RELATIONS BETWEEN TASK AND INTERACTION EFFECTIVENESS

We have noted already that task effectiveness usually requires earlier interaction effectiveness. However, each can occur in the absence of the other, and under certain conditions interaction effectiveness may depend on task effectiveness. The dependence of task on interaction effectiveness has been found most commonly.

TASK EFFECTIVENESS AS A CONSEQUENCE OF INTERACTION EFFECTIVENESS. Rush obtained positive correlations between *harmony* and efficiency ratings in combat of the air crews mentioned earlier. Katz and

Hyman (*592*) found shipyard productivity highly related to morale defined mainly in terms of interaction effectiveness. Stogdill and Koehler (*993*) noted that shipboard morale (again involving satisfaction with interaction) was moderately related to overall efficiency ratings of the ship. Similarly, Goodacre (*418*) observed more agreement with the leader's solutions, more satisfaction with one's own status, and more pride in the squad, itself, among 13 infantry squads performing well on field problems compared to 13 poorly performing squads. In the same way, Goodrich (*425*) reported that group productivity suffered when aggression was high in the group. Katz, Maccoby, and Morse (*595*) found higher productivity among insurance departments where supervisors took more personal interest in their subordinates. Among 14 work groups, Nagle (*779*) observed correlations of .86 and .63 between the rated productivity of the departments and the extent the employees liked their supervisor and the company. Again, crews rated good by their instructors perceived in projective sketches (which supposedly reflected their own group experiences) more orderly functioning, more interpersonal harmony, as well as more productivity (Torrance [*1048*]). Closely supporting the generalization that task effectiveness hinges on effective interaction, Berkowitz and Levin (*121*) noted that among 31 conferences, "low quality" solutions were reached more often among groups "bogged down" in process.

INTERACTION EFFECTIVENESS AS A CONSEQUENCE OF TASK EFFECTIVENESS. Continued *task* failure may produce interaction ineffectiveness. Odiorne (*792*) contrasted the behavior of operators of ten poorly operating machines with 40 percent down-time (and thus low task effectiveness) with operators of ten machines "down" only 10 percent of the time (and thus with higher task effectiveness). Much greater job dissatisfaction, absenteeism, tardiness, quitting, grievances, and observed arguments with other employees were noted among the operators of the poorly running machines.

The relation of task to interaction effectiveness is purely arbitrary. We can make either dependent on the other in laboratory settings, although in natural groups task success is likely to depend on the earlier attainment of the goals of interaction. But consider how this may be reversed in an animal experiment.

Suppose every time two rats interact by touching paws they earn a pellet of food. Also, they earn a larger pellet if either one depresses a

lever. While the rats would be satisfied to merely interact and completely ignore working the lever, they find that the lever must be worked to some extent or the rewards for interacting will cease. It is not difficult to locate human groups where the convivialities and enjoyments of interaction far outweigh the importance of task accomplishment. Task effectiveness is maintained to some minimum extent so that the group can justify its existence, but the main concern is with the satisfactions of interaction. Many volunteer agencies are likely to fit this description. Guetzkow and Gyr (*444*) noted that conference groups could reach interaction effectiveness at the expense of task effectiveness. Meetings faced with difficulties could achieve a high degree of consensus and good feeling by postponing complex problems, and tackling only simple agenda items. Solution of these simple agenda items gave a sense of task accomplishment, although the major success occurred in achieving satisfying interaction.

CONDITIONS PROMOTING THE INDEPENDENCE OF INTERACTION AND TASK EFFECTIVENESS. Under a variety of special circumstances, interaction effectiveness and task effectiveness may be unrelated.

Goode and Fowler (*419*) described conditions in a small feeder plant in the auto industry. The work required little skill or coördination. The workers were marginal or handicapped employees unable to get jobs elsewhere. Little training was required and an abundant labor supply was available. The workers produced to a high degree despite abusive supervision likely to promote interaction ineffectiveness and under more normal circumstances likely to reduce task effectiveness. "Produce or get out" was effective with employees under these conditions. Production was rewarding to the employees since they could keep their jobs only if they produced; and if they lost their jobs, they would have difficulty in finding new ones.

A contrary condition is exemplified in the British building trades. Davis (*260*) found that 60 percent of British building workers were opposed to wage incentive plans (which would mean higher rewards to them for task effectiveness) because the workers felt incentive plans would hinder harmony and good feelings within the group (would lower interaction effectiveness). And the workers were right, for according to Wyatt (*1144*), while piece rates and bonuses increased productivity and take-home pay among chocolate wrapper girls, they also increased disagreement, stress, and faultfinding. If task effectiveness is

increased mainly by increasing the magnitude of the incentives for the group members, it may produce greater tensions in their interaction rather than promote satisfaction with interaction as well as task effectiveness.

The independence of task and interaction is illustrated by a research unit, composed mainly of clerks, which was noted for its pleasant interactions, harmony, and good feelings. Each member's birthday was an occasion for a feast. Its Christmas party was celebrated among the many held. There was only one thing wrong. It did not produce any research. Bitter tears were shed at the dissolution of the unit. The failure to produce, of course, was not due to the harmonious interpersonal relations but rather to the lack of training of the clerks and the lack of suitable direction.

SOURCES OF BIAS. Two factors bias the correlation between task and interaction effectiveness. One is the situation in which the group is placed; the other is a matter of the personality of the individual member. Miller (*746*) reported a marked difference in satisfaction of military personnel with such things as recreation, transportation, and leadership at different air defense sites. The differences did not appear due to the differences in available facilities or in the leadership. Rather, it was a matter of how geographically isolated the sites were. It has been remarked that one could almost perfectly account for the satisfaction of stateside servicemen during World War II by the geographical proximity of their camp to the nearest large city.

With regard to the individual member, Weitz (*1099*) noted that satisfaction of a member with his work group situation may be more a function of a generalized satisfaction with living, home, politics, etc. Most of us are familiar with the chronic griper. For him, most of his interactions with others as well as the task outcomes would be dissatisfying regardless of the objective state of affairs.

USE OF THE CONCEPTS. Generally, we expect that the influence of task and interaction effectiveness will be the same on leader behavior. Thus, we will develop a series of propositions about group effectiveness and leader behavior and assume that they apply as well (with some qualifications, as needed) to productivity (if relevant) as to satisfaction with the group's activities. This general definition of effectiveness is consistent with the need for personnel psychology to expand its criteria of organizational success. Pointed out elsewhere is the need for psy-

chologists to add to presently accepted criteria of organization efficiency such indices as the value of the organization to its members and the value of the organization to society as a whole (Bass [62]).

RELEVANCY OF GOALS

Numerous personnel psychologists have suggested that among or highly correlated with the "task" goals of business, industry, and similar organized effort should be the satisfaction of the members of the organization. For Blum (*139*), the goal of industrial psychology "should be the satisfaction of man, not of any one man to the disadvantage of others, or of one group over the others. Men must be free to express their feelings, to reach goals, to produce and to develop as secure individuals. . . . Efficiency then follows as a necessary accompaniment" (p. 1). In the same way, Ghiselli and Brown (*394*) suggest that whenever management—regardless of motives—introduces programs to increase worker comfort, safety, and satisfaction, such programs in the long run lead to higher profits.

Again, the late Walter V. Bingham noted in a private letter:

> To my mind, one of the outstanding characteristics of the American enterprise system is that by and large, two spectacularly dissimilar goals of organizational success namely (a) corporate profits in the long run and (b) worth of the enterprise to the community and to the individual worker, lie so nearly in the same general direction that steady advance toward either goal commonly means progress toward the other.
>
> I do not happen to be acquainted with any wise, able, successful employer who defines his business goals solely in economic terms, namely profits . . . nor (anyone) whose goal of organizational success is defined in such very broad social terms that it fails to include the financial interests of . . . the . . . investors who have saved and supplied the indispensable capital requirements (Bass [62], p. 160).

RELEVANCY OF INDUSTRIAL PRODUCTIVITY TO THE WORKER. Empirical evidence indicates that productivity goals may be irrelevant to worker need satisfaction in a wide variety of situations. Following a summary of the literature, Brayfield and Crockett (*161*) concluded that surveyed employee attitudes toward their job bear little or no relationship to their performance! However, expressed dissatisfaction was found related, but not consistently, to various measures of tendency to withdraw from the job, such as absences, tardiness, turnover, and accidents.

We guess that absences and quitting primarily reflect *interaction* ineffectiveness, for a large portion of attitude survey responses concern satisfaction with the company operations, fellow workers, and immediate supervision, while relatively less involves satisfaction with the task itself.

Three of the four factors Kahn (*584*) uncovered in a factor analysis of reasons for the satisfaction of workers with their jobs concerned interaction effectiveness. Similar studies by Burns (*174*) and Knoell and Stice (*623*) again found a preponderance of concern with interaction matters. We guess that attitude survey results do not relate consistently with worker productivity, *because the goals of the task of the worker are often irrelevant to his own need satisfaction.* Kahn (*584*) has shown that workers vary in the extent they regard their task as materially rewarding, challenging, a source of status and opportunities for learning, but many studies have noted that productivity, as such, may be completely unimportant to workers. For example, Selekman (*925*) cited numerous case studies of work groups openly resisting management efforts to use piece rates to provoke competition. The relevant goals in such worker groups were stabilization and equalization of production so that all workers would share equally in the work and in the rewards. Fear of "rate-busting" is widespread, even today. Often management may think it is setting work group goals, *yet the management goals are irrelevant to understanding worker behavior.* The worker's relevant goals may be those gained by following such informal group rules cited by Roethlisberger and Dickson (*878*) as:

"Don't be a rate buster."
"Don't turn out too little and be a chiseler."
"Don't squeal to supervisors."
"Don't act officious."

Roethlisberger and Dickson (*878*) go on to describe the marked divergence from management in the relevancy of certain goals for employees in a mica splitting room. While management may have believed that piece rates insured that productivity would be a highly relevant goal for their employees, actually it had little relevance, for in the particular circumstances workers had developed strong anxieties over losing their jobs because of economic depression and tended to restrict production in response. *For these workers, keeping a job was highly relevant; producing was not.* Along these same lines, Pigors (*826*) illustrates the

significance of the relevancy of goals by telling of the bullied cabin boys who, when officiously directed to wipe the silver, wiped hard enough to remove the silver plating.

At a different level, Weschler, Kahane, and Tannenbaum (*1101*) accounted for the discrepancy between actual research productivity of a laboratory group and employee satisfaction by suggesting that an unproductive group may select as important some goal other than productivity. Striving to set a community chest record, a unit may get its gratification through this type of success rather than through spectacular productivity. Viteles (*1078*) agrees, noting that the small primary group, with goals not necessarily those of the organization, determines attitudes of satisfaction with and desire to continue in the group.

THE SIGNIFICANCE OF RELEVANCY. Let us contrast two survey analyses. In the first, the observer measures the number of cartons packed per hour and the amount of scrap of a series of cannery work groups. Management has hired the observer to develop techniques for increasing productivity, reducing scrappage, and improving "housekeeping." He says since this is what management wants, he must use these as his yardsticks of group effectiveness. All of his own work will be directed toward raising productivity and housekeeping and lowering scrappage. He assesses the behavior of the supervisors and selected aspects of the interaction among the workers in each group. He relates these assessments to the measures of productivity to formulate principles about social factors contributing to group effectiveness, as he defines it.

In the second survey, the observer first notes that the workers are on a piece rate and that work is limited by the amount of produce brought daily to the cannery. If one person works rapidly, he will pack more but the scrap will multiply. Workers are not penalized for scrap. He further notes that workers are permitted to take all the scrap home with them that they can carry, since management regards the scrap material as sheer waste to be removed as cheaply as possible. He then proceeds to relate the assessments of supervisory and group behavior to productivity and scrappage.

For the first observer, group effectiveness means high productivity and low scrappage. For the second observer, high productivity is irrelevant to group effectiveness but *high* scrappage is relevant. The

second observer is obviously likely to develop a better understanding and more parsimonious generalizations about group behavior. His propositions will be anchored to relevant goals.

ABSOLUTE VERSUS RELATIVE CRITERIA OF EFFECTIVENESS. In order to develop *generalities* to understand group behavior, we will have to reject arbitrary absolute goals that merely have face value as the ends whose attainment yields group effectiveness. If the goals are irrelevant, their attainment will yield little or no satisfaction to the group members; *hence, their attainment may have little or no direct effect on member behavior.*

To generalize from his data, the laboratory experimenter must insure that the goals set for his subjects have some relevancy for them. Similarly, the field investigator cannot rest content to study the effects of goal attainment on group behavior when the goals are arbitrarily selected by higher authority or for historical reasons. For example, the field investigator may find the goals shifting considerably as he moves from one office to another in a company. While profits are ostensibly in the minds of all, in the sales department, sales are everything. In finance, it is a matter of tax savings which is all-important; on the assembly line, "production is king," while the research department is convinced that the company lives to improve its products (Browne [*168*]). Generalities about behavior in all these departments require shifting goals, from one to another, but insuring that in each instance relevant goals are considered.

IMMEDIACY OF GOAL ATTAINMENT

"Evaluation is both a short-time and a long-term affair. Ten years after an executive is discharged from his job, his associates may reflect that he was the best executive they ever had on that job" (Shartle [*934*], p. 337).

Empirical evidence is sparse and mixed on the matter of the relation between immediate and ultimate group effectiveness. Torrance *et al.* (*1051*) found significantly positive relationships between effectiveness measures of air crews based on group situational tests (immediate effectiveness), simulated survival operations (intermediate effectiveness), and combat success (ultimate effectiveness). Thus, "good crews" in survival were more likely on the situational tests to utilize manpower better, to coördinate better, and to solve more problems. Crews reach-

ing combat who were rated high in combat effectiveness and more often hit their primary bombing target were characterized in the earlier test situation as making better use of manpower, participating more fully, showing better coördination and supervision. These results suggest that we may be able to extrapolate empirical evidence based on immediate group effectiveness to considerations of ultimate group effectiveness. Dugan (*285*) observed positive relations between training proficiency test scores of B-29 air crews and peer ratings of combat proficiency. Again, some positive correlations were found between peer ratings in training with similar ratings in combat, but training flight check scores were unrelated to combat criteria.

On the other hand, it is easy to illustrate the lack of relation between immediate and long-range effectiveness. For example, among a majority of Germans, Hitler's leadership and Germany as a national group were quite effective until 1943. Yet several years later few Germans would continue to agree that Hitler's policies were ultimately beneficial to the German public.

Similarly, the industrial concern which earns big dividends and is immediately effective because it "pinches pennies" and refuses to support research and development in the long run may be ultimately ineffective because it fails to keep up with its competitors.

RELATIVE IMPORTANCE. Immediate or ultimate effectiveness—which is more significant to understanding behavior in groups?

Hook (*539*) noted that a leader is primarily evaluated and followed or rejected on the basis of immediate events while he is attempting leadership. Hoover received much of the blame for the Great Depression, yet his policies and practices were no better nor worse than his immediate predecessors, Coolidge and Harding. "A Baldwin will be considered safe and sane if no social catastrophe breaks out during his ministry, even if he has lit a slow-burning fuse to the European powder magazine" (Hook [*539*], p. 4).

More to the point, most individuals, according to Zentner (*1149*), probably place considerably less general value on the abstractly formulated group goal than upon specific momentary and personally relevant satisfactions securable through collective action. American servicemen tended to view fighting to survive personally as more significant to them than the national ultimate goal of winning the war. The longer they were exposed to combat, the less they felt a given battle

had been worth the cost. Many theorists stress the importance of short-range goal attainment in fostering maintenance and improvement of the group. Thelen (*1023*) has suggested the need for continual immediate reinforcement by selecting tangible specific targets for action rather than arguments about ideology. In discussing neighborhood action groups, Thelen comments, "Whatever one's opinions, attitudes or ideology, he is pretty likely to join with his neighbors to get a wrecked jalopy off the street, a rat colony discouraged, or a new landlord indoctrinated" (p. 16).

Whether *immediate* or *ultimate* effectiveness will be of importance in determining leadership and group behavior will depend on whether the group members are primarily focused on immediate need satisfaction or on long-range need satisfaction. For example, economy-minded planners may be most satisfied by centralized production of military weapons. Their behavior will be governed by considerations of immediate effectiveness. Yet such concentration of production is more vulnerable to atomic attack and ultimate ineffectiveness. Military planners' behavior will be focused more on ultimate effectiveness in this situation.

Within a given situation, differences in personality, intelligence, and status will determine whether short-range or long-range goals are regarded as more important and whether immediate or ultimate effectiveness will affect present behavior to a greater extent. British war veterans of high intelligence were found in interviews to be more interested in long-range vocational goals—opportunities for learning, growth, advancement, and variety. Those of lower intelligence were more concerned with workmates, hours, pay, and leave (Wilkins [*1118*]).

And leaders themselves vary greatly in their concern for immediate or ultimate effectiveness. While Napoleon was extremely concerned about his ultimate impact on society (I want to be the Rudolph of my house) and Hitler talked of a New Order which would last a thousand years, international leadership during the 1950's seems concerned with the immediate goal of avoiding total war with less regard for ultimate consequences of steps taken to do this. This immediate goal has become so significant and pressing, in view of atomic warfare, that immediate effectiveness of leadership is judged all-important by the leaders themselves.

Yet, all things considered, as we will show in Chapter 7, the member who has been judged effective as a leader earlier, will be followed in a current situation. But, if such judgment must be delayed, then the earlier effectiveness cannot contribute to the current success of the member. Thus, more immediate leadership effectiveness is likely to determine the subsequent course of leader-follower events.

PARTIAL VERSUS TOTAL EFFECTIVENESS

Lewis and Duncan (*663*) reported asking a large sample of students to predict which of two persons would persist longer in the face of failure, one who won all the time or one who won partly and irregularly. There was no clear majority opinion in one direction or the other. "It seems," the authors wrote, "that most people are not . . . aware of what has become one of the firmest laws of psychology," i.e., an individual only partially reinforced will exhibit more persistence, longer retention of habits or ways of behaving, if he has learned or acquired the habits under conditions of partial reinforcement rather than total reinforcement. Numerous experiments in the field of individual learning support the generalization about the effects of partial reinforcement. For example, Lewis and Duncan (*662*) found greater resistance to extinction of performance by subjects who acquired the performance under conditions of partial rather than total reinforcement.

We expect that a group rewarded continuously for some particular behavior will, if rewarding suddenly ceases, exhibit less strong behavior patterns than a group rewarded less consistently for the same act. The group complimented by its supervisor every time it performs up to standard will be less likely to maintain such performance in the absence of the superior than a group complimented by its superior irregularly or partially when meeting performance standards. The partially reinforced group builds up a tolerance for lack of reinforcement while it also strengthens a particular habit pattern, such as meeting a standard production requirement. It learns that if it persists long enough, compliment and reward will eventually occur. The totally reinforced group strengthens the particular habit to meet a standard, but has no opportunity to acquire the response to persist in the face of frustration or lack of reward. When reward suddenly ceases, it has less

strength to maintain performance in the absence of continued reinforcement.

While most studies and opinion have noted the need for leaders to be consistent, few have considered the value of "partial consistency." For example, Stouffer, Suchman, *et al.* (*1001*) hypothesized that military groups would be more effective when violations of rules were disciplined consistently. Wilson, Beem, and Comrey (*1126*) found supervisors of highly productive skilled tradesmen to be more consistent. Is there a conflict of principle here? No, for by partial reinforcement, we do not imply leadership or group effects where the same performance by members results in reward one time and punishment the next. Nor do we mean a condition where different incompatible performances are demanded for the same stimulating condition in some haphazard way resulting in the arousal of competing, conflicting responses to the same stimulus.

Conforming to this argument about partial reinforcement, Roberts (*868*) suggested that youth leaders should exercise their authority only when the situation demanded it. They should bring their ability to reward or punish into play when performance by members called for it rather than do so continuously. Similarly, Kelman (*605*) reported greater changes with suggestion when only part of a school class was to be rewarded for compliance rather than when all were to be rewarded.

MULTIDIMENSIONALITY OF GROUP EFFECTIVENESS

A number of empirical analyses of "morale" surveys all demonstrate the need to consider group effectiveness as a multidimensional concept.

As noted earlier, Kahn (*584*) emerged with four independent factors describing worker satisfactions. The first primarily involves what we call task effectiveness, the second certain elements of task and interaction effectiveness, while the remaining factors mainly concern interaction effectiveness:

1. Satisfaction with the material value of the job, with its present and future pay, its opportunities for learning and promotion. (In addition to relating to task effectiveness, we would say that an employee high in these satisfactions regards his work effectiveness as ultimate as well as immediate and relevant.)

2. Satisfaction with the work, with the extent to which the job is challenging, interesting, and provides status to the job holder. (In our

terms, these satisfactions are immediate and relevant, indicating worker contentment with his activities and position within the work group.)

3. Satisfaction with the company as an organization, with the working conditions and the company operations. (Especially for conditions and operations involving others, these satisfactions are evidence of interaction effectiveness.)

4. Satisfaction with the competency of the supervisors as technicians and leaders. (Again, interaction effectiveness.)

Burns' (*174*) analysis of the Science Research Associates Employee Inventory yielded seven factors. Among these were such indices of interaction effectiveness as satisfaction with immediate supervision, with company operations, with working relations, and with integration in the organization. Others, such as satisfaction with the psychophysical conditions of work, appeared closer to task effectiveness. Likewise, Knoell and Stice (*623*) were able to construct reliable independent scales for such factors as sense of personal well-being in the Air Force, confidence in Air Force management, satisfaction with job assignment, liking for own crew, and acceptance of Air Force goals.

Using data from ten submarines, a correlational analysis of 16 measures of submarine effectiveness was obtained by Campbell (*185*). A "morale" cluster, most highly correlated with reënlistment rate, lack of disciplinary offenses, and disciplinary strictness appeared, but most other measures were unrelated to each other.

While laboratory experiments may use single measures of task or interaction effectiveness, it is clear that a comprehensive understanding of organizational behavior requires examining a multiplicity of indices.

CHAPTER 4

GROUP ATTRACTIVENESS

Iphicrates the Athenian used to say that it is best to have a mercenary soldier fond of money and of pleasures, for thus he will fight the more boldly, to procure the means to gratify his desires.
—PLUTARCH, Lives (ca. A.D. *100*)

The attraction of the mercenary to the army increasing with desirability of money and material comforts illustrates how the attractiveness of groups depends on the magnitude or value of the rewards anticipated from membership.

A group is more *attractive*, the greater the rewards which may be earned by membership in the group and the greater the anticipation or expectancy of earning them. As Cattell (*205*) has suggested, the potential satisfaction of a group is not a constant. A group can formulate or perceive new enlarged goals by noting new possibilities of gain from the existing environment.

Cohesiveness and attractiveness are two similar ways of describing the same thing. It seems obvious that if a collection is more attractive to each of its members, each of its members must be more attracted to each other. *Solidarity* is an older sociological and political term for expressing the same construct.

RELATION TO INDIVIDUAL BEHAVIOR THEORIES. Numerous theorists have concerned themselves with describing the energization and direc-

tion of an organism's behavior in similar or identical terms. Tolman (*1045*) accounts for performance in terms of reward expectancies and degrees of tension aroused by drives. Rotter (*889*) postulates that a subject's behavior is a function of expectancy of reinforcement and the value of the reinforcement. Brunswik (*170*) substitutes objective probability of reinforcement for Rotter's more subjective "expectancy." Hull (*552*) produces response evocation as a consequence of the product of the amount of drive and the earlier experience of reinforcement of the organism.

All share in common the conceptualization that performance depends on strength of reward or reinforcement and potential of the performance to earn the incentive. Differences exist concerning whether the potential should be described from the observer's viewpoint or from the organism's, and the relative importance of effects of past experience and past reinforcement on acquiring the "potential."

SIMILAR CONCEPTS. Attractiveness of the group is identical to Cartwright and Zander's (*201*) concept of the *valence* of the group, "the attractiveness of the group goal times the probability that the group will reach this goal." Hemphill and Westie's (*505*) concept of *potency* contains similar elements. Potency refers to the strength of the members' needs which may be satisfied if the group is effective, if the group reaches its goals. A group may be highly potent, but ineffective. It may be potentially highly satisfying but fail to satisfy. Potency refers to the importance of the group to its members and the strength of needs the group has the probability of satisfying. Willerman (*1121*) uses *involvement* in a similar way. Involvement is concern with the welfare of the group and the likelihood of need satisfaction when the group succeeds.

LACK OF ATTRACTIVENESS. Connecting attraction of the group to our definition of "group," as such, we noted in Chapter 3 that a group becomes a mere collection when its attractiveness approaches zero. Since it takes some motivation to disband, the collection may hang together, but by definition, the group ceases to exist when it loses its potential to satisfy the needs of its members, or the member needs to be satisfied disappear.

Without expectant and consequent reward, persons may be observed as "of" a group and not "in" the group. The Greek political philosophers distinguished in this way between the citizen in the city-state and the slave of the citizen. A creative dominant minority was person-

ally involved in the maintenance of the Roman Empire. The mass of underprivileged "internal proletariat" were not (Toynbee [1052]).

There are several ways attraction, or the cohesiveness of the members of a group, will approach zero. The rewards attainable by collective action may disappear. The rewards may lose their appeal due to satiation of the members with the rewards. New rewards outside the group may compete for attention. The expectancy that the group can obtain the rewards may disappear. Still another source of reduced attraction may result from repelling conditions appearing in the group. Membership may impose restrictions, require greater energy expenditure, or create unduly disproportionate sharing of rewards. (More tension may be aroused than reduced by remaining in rather than leaving the group.)

MEASURING GROUP ATTRACTIVENESS

A group's attractiveness may be measured overtly by observing the proportion of members who remain rather than quit the group during a given period of time; by the duration of membership; by the frequency and strength of applications for membership in the group; by the lack of absenteeism; by the lack of requests for transfer or removal from the group; by the proportion of time and energy members invest in the group; by the tendency to respond to requests for assistance; and by the tendency to support the group financially.

Verbal assessments of the attractiveness or cohesiveness of a group can be made by asking members to indicate the strength of their desire to remain in the group; how much they would like to be reassembled with the same members; how much loss they would feel if the group disbanded; how hard it would be to keep them from attending meetings or to drive members out of the group; how much they would rather be in another group; how much time and energy they would be willing to invest in maintaining the group; how much they would resist transfer or removal; and whether they will apply or reapply for membership.

Projective procedures have also been used to assess attractiveness of a group. Also, peer ratings of other members' attraction have been tried (Libo [667]).

Libo (667) showed that those who actually left experimentally established clubs as a consequence of gradually increasing pressure rated

themselves initially significantly lower in their desire to remain in the group compared to those who remained. Moreover, both verbal and overt measures of attraction were sensitive to differences in rewards possible in different groups. Since human relations problems are more interesting than accident prevention to students, rated attraction to discussion groups featuring case studies in human relations was much higher, as was tendency to remain in the group compared to discussion groups focused on accident prevention.

Libo also was able to discriminate the attractive case history group from the unattractive accident prevention group by the use of Group Picture Impressions, a projective technique scoring the number of stories and positive values attributed to ambiguous pictures of groups. In this analysis, he noted a correlation of .34 between these projective scores and rated attraction. While the latter was more predictive of actual tendency to remain in rather than quit the group, Libo suggested that under coercive conditions, a projective technique might be more predictive. Elsewhere Sagi, Olmsted, and Atelsek (*896*) actually found that self-rated personal involvement and identification of "closest friends" yielded an index which better predicted maintenance of membership in small task groups of college students than did simple self-prediction of stay or quit.

In a subsequent examination of 18 community groups, Libo reported positive correlations ranging from .25 to .71 between self and peer ratings of attraction, Group Picture Impressions, and actual attendance at meetings.

REWARDS, GOALS, AND ATTRACTIVENESS

The contribution to group attractiveness of the rewards possible for members can be detailed further. Certain rewards can only be obtained as a member of a group. Persons seeking such rewards are attracted to groups which may provide them. The stability, magnitude, and clarity of the rewards and the lack of competing rewards or goals will also affect a group's attractiveness.

REWARDS REQUIRING GROUP ACTION. It is not hard to search for potential rewards of group membership. Indeed Linton (*672*) took the extreme position that the average individual "is unhappy and unsure of himself unless he feels that a number of other individuals share his

particular ideas or habits and are his friends" (p. 216). That is, men generally are attracted to groups because they would be "lost" without them. This is particularly apparent among immigrants to a new land who band together with fellow former countrymen for security and companionship (Faris [*306*]).

If we increase the need for security through sudden threats to the members from outside the group, members will be drawn toward each other for mutual protection. If the collective fails to provide the desired protection, members will become less cohesive. Grouping may be mandatory for an activity. There are interesting activities which are not possible as an individual. (You cannot play much baseball by yourself.)

Many authorities have commented on the service rendered by gangs of delinquent juveniles to their members as substitute families (Robinson, Cohen, and Sachs [*870*]). Inconsistent, harsh, repulsive parental treatment (or lack of any parental concern) drives the juvenile to seek other avenues of emotional support and security. The juvenile gang offers support, opportunity for excitement, revenge against authority as well as immediate material rewards from thefts and protection money. Thrasher (*1037*) noted that it did little to remove a delinquent from an undesirable gang unless you could provide him with a socially better one acceptable to him. He felt that the attractiveness of the gang was so strong that we would do better to try to change the antisocial mores of the gang.

The "substitute family" is not limited to juvenile delinquents. Remove young men from their homes and place them together in the Army. Again, small, highly cohesive groups of peers will arise which can provide many of the rewards that otherwise could have been given by the family through recognition and friendship (Gross [*438*]).

REWARDS OF MEMBERSHIP AND ATTRACTIVENESS OF UNIONS. The reasons given for joining unions illustrate the rewards involved in group attractiveness. The attraction of workers to unions is clearly a function of the specific rewards such membership is likely to provide as well as the expectancies that the rewards will be obtained. Membership yields job security, better pay and working conditions (Golden and Ruttenberg [*415*]). On the basis of 392 interviews in union members' homes, Rose (*882*) reported that 38 percent joined for personal benefits and 46 percent joined because "they had to" since they worked in union shops. When queried concerning the purpose of the union, 75 percent

selected union benefits, and 31 percent job security; only a very small percentage mentioned community or political action. But 93 percent agreed that unions are needed to "buck" management, corroborating Chalfen's (*212*) earlier observations that union membership provides feelings of security, of status, of social equality, and an open release for aggression.

In the closed shop, union membership is prerequisite for employment. In the union shop, membership is necessary to maintain employment but among the more active members, personal and more idealistic needs appear to motivate membership more (Seidman, London, and Karsh [*924*]).

CHANGING GOALS

If what is reinforcing to a person changes while he is a member of a group so that the group no longer is capable of giving him what he wants, he will leave the group and move into one which might (Cartwright and Zander, [*201*]). An unusual example of this change of group attraction occurs in community disasters. Killian (*613*) noted how public service workers may suddenly quit their stations and rush home to see if their families are safe rather than remain on their assigned jobs during a tornado or other disaster.

Change in grouping due to gradually changing needs is illustrated by Cottrell (*240*). A town had been built in the middle of a desert to service steam locomotives. The railroad workers identified themselves with the railroad management and not the remaining townspeople, the merchants and the professions. The railroad Dieselized, making the railroad work and the town obsolete. The workers realigned with the merchants to keep the town alive.

GOAL CLARITY AND ATTRACTIVENESS

Both theorists and available empirical evidence support the proposition that attractiveness is a positive function of the clarity of the group's goals and the rewards of membership.

THEORETICAL EXPECTATIONS. Andrews (*24*) declared that production goals must be expressed in terms understandable to employees and must be realistic to promote effective and attractive groups. Cartwright and Zander (*201*) suggested that a group is more likely to reach its goals (be more effective and therefore more attractive) the more its goals are clearly perceived by the members. We infer that if more effec-

tiveness is anticipated, the group should be more attractive. In a similar vein, Gibb, Platts, and Miller (*404*) emphasize that if members formulate their own goals, the resulting increased clarity increases group "we-feeling" and involvement.

More indirectly related to the matter of goal clarity is the question, "When can group punishment be used effectively in the military situation?" Stouffer, Suchman, *et al.* (*1001*) hypothesize that group punishment (a goal to be avoided) is most likely to promote group effectiveness (hence, attractiveness) when members are able to distinguish clearly between acts likely to elicit the goal of punishment and acts not likely to do so. Also necessary is special advance warning about the consequence of the occurrence of an offense.

"What promotes the reduction of differences between new members and old members in attitudes?" Curtis and Gibbard (*251*) emphasize among other things that the speed of assimilation of new members is related to their awareness of group purposes and their reasons for being in the group.

These ideas may be summed up as follows: If you are attracted to a group because you expect to be rewarded by obtaining a goal you want to reach, then the more clearly you perceive this goal, understand what satisfaction the reward will bring, comprehend its significance and importance, the more you should be attracted to the group. Conversely, the more ambiguous the reward, the less sure you are about wanting it, the less you should be attracted to the group.

SOME EMPIRICAL RESULTS. Habbe (*451*) reported that employees were more satisfied in one large plant than another as a consequence of being told more often why they had to do something when asked to do so. In an examination of simulated work groups, Raven and Rietsema (*847*) found that when subjects cut figures to build a board house, ostensibly as part of a team, the task was more attractive if the goal of the task was clear to the subject. Clarity was varied by varying knowledge of what subjects would be rewarded for doing. Greater clarity also yielded less hostility and greater concern for the group.

Torrance (*1049*) noted that plane crews were much more likely to survive when downed in enemy territory if the situation was clarified and goals established for the members. Illustrative of the control over attractiveness possible where goal clarity is increased is Weitz's (*1100*) study of 226 life insurance agents who when hired were given a booklet

describing in detail the kind of work the new employee was entering. These were contrasted with 248 who were hired at the same time but not given the "clear concept of the job" afforded by the booklet and the discussions with supervisors it was likely to promote concerning the goals of the agency. Table 1 contrasts the percentage of new hires in each group hired at the same time who had quit the job at the end of the test period.

TABLE 1. Termination Rate for Life Insurance Agents Under the Two Treatments

Month Hired	Percent Terminated Through October: Given Booklets to Promote Clarity 226	Not Given Booklets 248
May	32	47
June	34	49
July	25	31
August	18	22
September	5	10
October	3	9
All	19	27

Adapted from J. Weitz. Job expectancy and Survival. *J. appl. Psychol.* 1956, *40*, 245–247.

ATTRACTIVENESS AND CONFLICT OF GOALS

The matter of attractiveness is complicated greatly by the wide variety of goals different members of the group may have. For example, Gibb, Platts, and Miller (*404*) list some of the reasons that people attend human relations workshops and conferences:

—to relieve boredom
—to get inspiration and stimulation
—to have a trip, holiday, or a rest
—to meet people in their field or with their interests
—for educational purposes
—for status or prestige—to impress friends at home
—because their expenses are paid
—because they are expected to
—to shop in the town where the conference is held

—to get away from a tense home situation
—to meet friends
—to put across an idea, to lobby, to influence
—to get a job
—because they "have gone every year"—it's expected
—because their boss or organization requires it

Those who sponsor the workshop or conference also may have a wide variety of motives:

—to inspire and stimulate organization members
—to disseminate information
—to get at the grass-roots member and his ideas
—to train people to work together
—to improve human relations
—to bring people together who have similar interests and problems
—to put across an issue, to lobby, to influence
—to bring national and local groups together
—because they are expected to
—because "it has always been done" (pp. 61–62)

Let us examine the theoretical implications and some of the empirical results of this divergence of interests.

THEORETICAL EXPECTATIONS. Attractiveness is likely to be greater in groups where members share the same goals, goals attainable through group action. Attractiveness is less when members vary or are in conflict concerning the aims of the group. Consider a group *AB* where member *A* seeks security which he expects can be earned through group effort with member *B* who shares *A*'s goal. Contrast this with group *A′B′*, where member *A′* has the same goal of security that he expects to satisfy by working with *B′* but where *B′* is disinterested in security. *B′* may seek status or some other reward for working with *A′*. The expectancy of *A′* obtaining security by remaining with *B′* should be lowered when *A′* becomes aware of the different aims of *B′*. The same should be true for *B′*. Group *A′B′* should become lower in average attractiveness than group *AB*. Of course, special arrangements may modify this. *A′* and *B′* can agree to work first for the goal of *A′*; then concentrate on obtaining what will be rewarding to *B′*. The matter may also be complicated by competition. If *A* and *B* share the same goal, but if only one or the other but not both can attain the goal by working together, at-

traction for each other will be reduced. But all other things being equal, A' and B' should be less attracted to each other than A and B.

RELATED COMMENTARY. Many others have suggested earlier that attractiveness is higher in groups where members have common purposes. Freeman (*362*) hypothesized that persons with common goals are likely to unite to realize those goals. On the other hand, if the more economically powerful gain control, their goals become dominant and those of lower status (Toynbee's internal proletariat) are likely to withdraw from the group, which has lost its attractiveness for these low-status members who believe it no longer serves their interests.

Suppose management increased the utility of plant operations by speeding production. The increased production may mean for workers increased effort, fatigue, anxiety, and risk without a commensurate increase in rewards. The work group will become less attractive to them. This type of possibility led Firey (*331*) to propose a mathematical statement of the differential utility of a group to its members to account for the schismatic tendencies of the low-status members to withdraw from the group because they receive less return for their increased effort than managment.

Maccoby (*687*) hypothesizes that a group is likely to increase in effectiveness (hence be more attractive) if each member sees, accepts, and shares a set of goals in common with the others. A group will be less attractive where members perform to satisfy the needs of high-status members. Cartwright and Zander (*201*) agree that when differences cannot be reconciled, cohesiveness is materially lowered. Likewise, Marmer and Zander (*716*) remark that group climate is disturbed when individual members insist on group-conflicting satisfactions. To promote mutual attractiveness, Thelen (*1023*) has suggested that neighbors should be encouraged to develop common goals and enterprises, such as running hobby nights, parties, and dances.

Ordinarily competing groups can be made to coöperate if goal attainment requires both groups. (Witness the alliance of the Soviet Union with the United States to defeat Nazi Germany.)

SOME EMPIRICAL RESULTS. Attractiveness was reduced when members were found by French (*366*) to disagree over the way to solve the group's problem. Similarly, Festinger, Gerard, *et al.* (*321*) found a member less attracted to groups where he thought others would disagree with him. In addition, members who did not change their

opinions tended to communicate only to those close to their own position. That is, they formed a new subgroup of greater attractiveness than the older, larger, complete group. In a study replicated in seven countries, Schachter, Nuttin, *et al.* (*906*) also found the deviate in a group was rejected by the others. Similarly, Sampson (*900*) reported that if we see others sharing our attitudes, we increase in our attraction to them.

Conference research suggests that it is easier to satisfy members with shared goals. For 72 groups, more items had to be covered to satisfy groups whose members did not have congruent goals (Peterman [*819*]). As a whole, congruence of goals correlated .54 with satisfaction.

Again, among personnel at isolated air defense sites, morale (attractiveness?) was found to be greater if administrative acts fitted with subordinates' previous conceptions of group goals (Miller [*746*]). In the same way, Levy (*656*) reported that among 15 groups of four men discussing case histories, attraction was greater in the 8 coöperative groups than in the 7 groups in which members had competing goals.

DUAL LOYALTY. Ameliorating the loss of attractiveness due to conflicting goals in union-organized industry is dual loyalty or dual allegiance (Stagner [*979*]). According to Katz (*589*), workers do not see a fundamental conflict between union and management goals. Moreover, they have little sense of class conflict. In agreement, Purcell (*842*) found that 73 percent of 385 packing house employees that he interviewed were favorable toward both management and the union. "The head men of the company . . . are all right. . . . The union don't hurt the company. The union protects the workers, that's all" (p. 95).

It is probable we are continually developing "logic-tight" compartments to offset the undue difficulties in working with others who have conflicting aims. We are prone to gloss over the incongruities of aims and emphasize the common purposes of the groups to which we belong.

EXPECTANCY AND ATTRACTIVENESS

Men are attracted to groups because of the greater expectation of reward through group effort than through working alone, for groups tend to be more rewarding or effective than lone individuals.

GREATER EFFECTIVENESS EXPERIENCED IN GROUPS. The interest of most men in groups, so universal as to be regarded as instinctive by

many theorists of several decades before and after the turn of the century intoxicated by Darwinism, may be due to the generally greater effectiveness of groups compared with individuals attacking the same problem, as noted in Chapter 3. Hermits cannot reproduce themselves. Reproduction requires, at least, temporary alliances. In any advanced society, men have learned to depend on each other to solve mutual or individual problems, problems with which they could not cope by themselves. The Tigris-Euphrates Valley could not be irrigated until men organized themselves into groups coöperating to develop and maintain the necessary canals and ditches.

While we will dwell on many exceptions later, most experimental investigators have found groups to be superior to their average individual member in learning, performance, and problem-solving. Why are groups more effective? Why do men grow to depend on each other? The sheer size of such projects as irrigating land or constructing temples obviously requires the coöperative effort of many workers. Isolated individuals cannot dig very large canals. But in addition to this, groups also provide greater problem-solving resources than available to the lone individual. Thus, members are likely to expect more success than if they worked alone. A group is likely to be advantageous in problem-solving, particularly when productivity of ideas is important (Heise and Miller [*491*]). (See Chapter 18 for more details.) The variety of responses in a group is likely to be greater than among isolated individuals. One member's ideas generate, in another member, more complex new ones which would be lost without interaction. Interaction provides an opportunity for evaluation and rejection of inaccuracies. It provides mutual feedback and reinforcement yielding fixation of correct responses and elimination of incorrect ones (Gurnee [*449*]). Thus, Shaw (*937*) noted that initiators of a suggestion reject only ¼ as many of their own inaccuracies as did someone else in the group.

Some examples of tasks on which groups have been found superior to isolated individuals include solving arithmetic problems (Mukerji [*769*], Klugman [*618*]); predicting future events (Klugman [*619*]; Kaplan, Skogstad, and Girshick [*587*]); learning mazes (Gurnee [*448*, *449*]); describing an event accurately (Dashiell [*254*]); working puzzles requiring originality and insight (Husband [*557*]); solving complex problems (Shaw [*937*]); learning nonsense syllables (Perlmutter and Demontmollin [*817*]); answering completion and vocabulary items

(Thorndike [*1034*]); ranking solutions to problems of parole (Timmons [*1040*]); answering problems such as deciphering, making use of interstimulation or problems such as sentence completion, making use of the accumulation of contributions (Watson, [*1088*]); recalling stories (Yuker [*1145*]); judging the familiarity of words (Bass, *66*); and judging the size of cities (Pryer and Bass [*840*]). Allport (*12*) summarized research of this type up to 1920, Shaw (*937*) carried the summary forward to 1932, and Roseborough (*883*) summarized the literature to 1951.

Groups seem to have an energizing effect also which usually is advantageous, resulting in greater possibilities of reinforcement than working alone. Lorenz (*679*) reported that shoe fabricators working in assembly-line fashion around a table with others produced 9.6 percent more than operators working in isolation. The tempo of the whole group was faster than that of the average isolated individual. The fastest worker in a group was slowed down but not as much as the slowest worker was speeded up. The work of students is increased in speed merely by the presence of others, according to numerous studies: Dashiell (*253*); Mayer (*730*); Schmidt (*911*); Weston and English (*1103*); Allport (*12*); and Sengupta and Sinha (*930*).

MORE DIRECT EVIDENCE. On the basis of studies of French governmental cabinets and American college interfraternity councils, Holt (*535*) observed that the desire to organize and remain in a coalition is directly proportional to the expectant rewards to be gained from the merger and the harm, threat, or punishment to be avoided. Conversely, coalitions will be repulsive if joining them jeopardizes one's position or power. According to Willerman and Swanson (*1123*), a sorority is more attractive to its members, the higher its prestige on campus, for its members can expect to be provided with more desirable social activities and greater opportunities to meet boys (especially the "right" boys). In the same way, it is difficult to get professors to participate readily in local chapters of their professional associations, for they cannot expect to gain much esteem for such participation, whereas if they participate on a national level they usually have more to gain. Conversely, a group will be less attractive to a member expecting others will disagree with him, rejecting his ideas (Festinger [*317*]).

A questionnaire study by Rasmussen and Zander (*846*) of 85 teachers concluded that a member's level of aspiration conforms to the ideal

performance he attributes to the group. This expectancy is greater the more he is attracted to the group. Again, Theodorson (*1025*) observed an increase in solidarity of members of eight discussion groups as the groups became more valued to the members, and the members became more interdependent during successive meetings over a 15-week period. Similarly, Grinker and Spiegal (*436*) found that cohesiveness increased in a bomber crew as members become more aware that each member is dependent on all the others for his security.

A collection of individuals may become a mob when attempts to gain rewards ordinarily repressed by the expectancy of retaliation can be obtained by mob action without penalty to the individual member. The mob becomes attractive to its members since rewards can be obtained that have been repressed because of fear of the consequences of obtaining them individually. In a mob, the members expect to remain anonymous and avoid any responsibility for their individual satisfactions (Sprott [*978*]).

SUBJECTIVE EXPECTANCY VERSUS OBJECTIVE PROBABILITY OF REWARD. In determining a group's attractiveness, objective probability of success may be less important than actual experience of success or subjective estimates by other members and oneself of likelihood of success based on earlier experiences.

Expectancies of reward through group effort may be regarded in the Hull-Spence theoretical framework as secondarily reinforced habits. For example, lambs suck instinctively. Lambs approach mothers and their sucking is reinforced. The mother likewise is reinforced by gaining relief from mammary gland tension. A generalized approaching of other sheep is developed, resulting in our observing the herding behavior of sheep. Furthermore, the bottle-fed lamb must be given special training before it will approach other sheep and exhibit herding behavior (Schneirla [*912*]).

Deutsch (*270*) manipulated expectancy in 3 ways in a total of 72 groups having 3 airmen each. Half of the groups had a high probability of reward (9/10). Half had a low probability (1/10). Each half was subdivided into two treatments such that one subdivision was told it was a capable one likely to succeed and given an initial experience of success, while the other experienced failure and was told of its lack of ability. Each of the samples was treated to false notes of enthusiasm or of pessimism, ostensibly from fellow members.

Deutsch's results support the need for a subjective, relative concept of expectancy, for he found that members were more desirous of remaining in the group if they had experienced success initially and if they believed that other members were enthusiastic. But the objective probability of reward was not significantly related to member attraction.

Similarly, Maller (*709*) noted that attraction to the group varied from one individual to another as a consequence of the individual's personal history. Two individuals, faced with the same objective probability of reward through group activity, would vary in their attraction to the group. Maller found that the tendency of a child to work in groups for a group goal rather than to work for a personal prize was greater if he came from a larger family (with up to four or five children) but that the tendency decreased for children from still larger families. The effects were small but suggest that earlier experiences will yield different attitudes towards groups for a given objective probability of reinforcement through group activity.

Individual differences in children's attraction to groups and the differences in herding behavior of bottle-fed and normally fed sheep are examples of differential expectancies resulting from past experience or examples of differential habit patterns resulting from earlier conditioning.

ATTRACTIVENESS RELATED TO EFFECTIVENESS

Defining *effectiveness* as rewarding and *attractiveness* as expectancy of reward makes it possible for us to deduce their interplay. Thus, if we are unattracted to a group, it is not likely that we will be satisfied by membership in that group, particularly if we are unattracted because we do not seek the rewards likely to be obtained by membership. The converse does not follow. We may anticipate a high degree of reward from a group, yet fail to obtain it. When attractiveness is low because of low expectancy, if potential incentives are present, effectiveness may occur unexpectedly. When attractiveness is high, effectiveness may or may not be high. However, as described by the law of effect or by related principles of reinforcement of behavior (Hilgard [*516*]), individuals change their behavior in a direction resulting in reward, goal attainment, a satisfying state of affairs which the organism does nothing to avoid. Hence, we expect that if highly attracted to a group, members

will be more likely to attain some degree of effectiveness; more at least than if expectant satisfactions and incentives were absent. A positive, but not perfect, relation should exist between attractiveness and effectiveness. It may be that this positive relation between the two constructs has led to one, or both, being used interchangeably as indices of morale. Although empirically correlated, the measures are conceptually independent. We certainly can observe a group of motivated and expectant members which fails completely to reach its goals. (This illustrates also that in constructing a theory, if we depend solely on factor analysis methods as our source of concepts or as a test of conceptual independence, we may lose some critical concepts in the process.)

A more dynamic statement of the relation between effectiveness and attractiveness is as follows: *Members will be more attracted to more effective groups. The more attracted, the more they will attempt to maintain or increase the effectiveness of the groups. They will tend to behave in ways contributing to the existence or increasing the effectiveness of a group, or else they will tend to disband the group temporarily or permanently.*

EFFECTS OF ATTRACTIVENESS ON EFFECTIVENESS

An illustration of the effects of increasing group attractiveness on group effectiveness is seen in the case of a group of salesmen who worked on a straight 6 percent commission based on competition with each other. Attraction to fellow salesmen was very low. Individual sales records were all right but customers were "tied up"; housekeeping was poor and satisfaction with working conditions was low. When attractiveness of the group, as a group, was increased by having all salesmen share in the group's sales record, there was increased attraction to fellow salesmen, and an increase in group effectiveness, as such. A division of labor took place. Each worker did those tasks he liked best, not worrying about having to compete. Customers were not "attacked" or tied up. Stock was cared for and "housekeeping" improved. Other members' ideas were promoted and satisfaction with the job situation increased.

SOME EMPIRICAL RESULTS. In examining empirical results, we will consider the direct effects of attractiveness on effectiveness as well as on related behavior promoting group effectiveness.

A variety of investigations support the generally positive effects of

attractiveness on effectiveness and behavior likely to produce effectiveness. According to Shelley (*945*), conferences are more successful in meeting needs to solve problems, the more members regard the group as a means of reaching goals. They are also more likely to be satisfied with the group decision. The active members of sororities rather than the inactive are more attracted to their sororities and derive more satisfaction and dissatisfaction from their membership (Willerman [*1120*]). Among Japanese school children (8 to 12 years old) who were attracted to a group because of its leader, it was noted by Toki (*1044*) that the group collapsed when the leader was removed to a small distance from the group.

B-29 air crews in survival school expecting more success and productivity were more likely to be rated as effective in combat subsequently. Similar results were obtained for 50 B-26 air crews (Torrance [*1051*]). Kahn and Katz (*585*) noted that the more a worker in a tractor factory felt part of his group, the higher was the productivity of the group. The same was observed among insurance employees. In a study of 26 infantry squads, Goodacre (*418*) found that members of these squads more effective in performance on field problems exhibited more pride in their squad. According to Dyer, Lambert, and Tracy (*293*), high performance in bomb wings was associated with willingness to pursue group goals. Among 100 B-29 air crews in training, cohesive ones were less likely to abort missions than those low in attractiveness.

PRODUCTIVITY AND ATTRACTION. We may account for work group studies in which a *high* degree of attractiveness or cohesiveness yields a *low* amount of productivity by considering the relevancy of production goals to the workers. Selekman (*925*), among many labor commentators, cited case histories of work groups openly resisting management's efforts to use piece rates to provoke competition. Cohesiveness in such groups led to stalling production so all workers would share equally in the work and the rewards. Both Schachter, Ellertson, *et al.* (*905B*) and Berkowitz (*120*) produced this effect in the laboratory. Similarly, Greer (*435*) found that cohesiveness was related to the effectiveness of 100 infantry rifle squads in simulated combat only in one-third of the groups where men were "highly adjusted to the Army" (i.e., shared the Army's goals).

OTHER EFFECTS OF ATTRACTION. Various other studies suggest that attractiveness promotes readiness to change, which, as noted in Chap-

ter 7, is usually necessary for increased effectiveness. It also promotes support of the group's objectives and goals, again likely to increase effectiveness. Gerard (*390*) observed that groups of high cohesiveness were more likely to try to compromise these differences. The greater the attraction of members to a group, the more they attempted to change each other's opinions and the more they succeeded. Again, Gibb (*398*) reported a greater amount of leadership (which reflects the amount of change occurring and is related to the possible increase in effectiveness) in initially leaderless groups when members were more interested in the group and its activities. Similarly, Bass and Wurster (*93*) found the correlation to increase from .88 to .99 between the status of executives as indicated by their rank and their tendency to display successful leadership behavior in initially leaderless discussions, as the problems about which the discussions were centered became more related to company activities. More attempts to change others were found to occur in attractive groups by Schachter (*905A*) and Back (*39*). Schachter noted more attempts to address remarks to deviants in cohesive groups, while Back found that leaders attempted to influence others more in attractive groups.

Cartwright (*200*) summarized results of several such studies as follows: "If the group is to be used effectively as a medium of change, those people who are to be changed and those who are to exert influence for change must have a strong sense of belonging to the same group" (p. 84).

Attractiveness increases the willingness to support the aims of the group. Thus, Kelley and Volkart (*603*) found that Boy Scouts commonly shared opinions about Boy Scout activities, the more they valued membership. Lieberman (*670*) contrasted the change in attitude over a 12-month period of workers promoted to foreman, elected shop steward, or remaining in the same status. While attitudes did not differ toward management before the change in status, the new foreman became more pro-management relative to the others as they identified more with management. Seashore (*922*) noted that highly cohesive factory work groups experienced less anxiety, jumpiness, and nervousness and exhibited more uniform productivity. Presumably more effective standards could be maintained.

VARIETY OF EXPECTED REWARDS. The particular rewards expected determine the subsequent behavior of the group. Back (*39*) promoted

cohesiveness in three ways in three different groups and observed the differential effects. When attractiveness was created by instructing members that they were going to like each other, members made long, pleasant conversations, expecting to persuade each other easily. When attractiveness was based on the expectancy of effective performance by all members, they wanted to exhibit efficiency and discuss only relevant matters. When attraction was promoted by emphasizing the esteem of each member for each other, members were cautious, concentrating on themselves, carefully avoiding risking loss of esteem. In the control group where attractiveness was minimized, activities were independent, members exhibiting little consideration of each other.

RELATIVE DEPRIVATION AND GRATIFICATION. A further outcome results from the relation of attractiveness to effectiveness. Suppose an individual who expects to be satisfied, but fails to be, is contrasted with one who does not expect to be. Who will be more dissatisfied? The former. As noted earlier, Willerman (*1120*) found that highly attracted sorority members were more likely to derive more satisfactions *and dissatisfactions* from membership.

Spector (*972*) organized a pseudomilitary hierarchy of 36 groups of four men each. Half the groups had a high objective probability of promotion; half did not. Within each subdivision, half were actually promoted and half were not. While, as a whole, all who were promoted were more satisfied, "morale" was higher for those with initially lower probabilities for promotion. Similarly, "morale" was lowest for those with a high probability of promotion who failed to be promoted. Thus, a member who expected satisfaction and failed to obtain it was more dissatisfied than a member without these expectancies. Conversely, a member with little expectancy of success derived greater satisfaction in succeeding than one with a high degree of expectancy of success.

EFFECTS OF EFFECTIVENESS ON ATTRACTIVENESS

Expectation can be viewed as a habit or tendency strengthened like other habits through reinforcement or the experience of reward. The anticipation of reward (or the avoidance of punishment) for a given response to a stimulus situation increases with repeated rewards for making such a response (see Spence [*974*], Chapter 5). Thus, members will increase in anticipation of goal attainment, and therefore increase in attraction to the group, the more they experience reward in the

group; i.e., the more the group is effective. Effectiveness promotes subsequent attractiveness. In the same way, ineffectiveness results in the loss of attractiveness. If too much work is demanded of members, if they lose esteem in the eyes of others by remaining in the group, if the group exhibits no progress toward its goals or if it fails to yield rewards for membership, it is likely to become less attractive.

SOME EMPIRICAL RESULTS. The deduction is supported by Cartwright and Zander (*201*) in a review of empirical studies by Bovard (*156*) and Festinger and Kelley (*323*) of factors contributing to cohesiveness. In both studies, more pleasant interactions (interaction effectiveness) among members resulted in greater cohesiveness, while unpleasant interactions did not.

In more closely related tests, Deutsch (*270*) found that members' attraction to the group was greater when success had been experienced initially rather than failure. Robson and Chapin (*871*) found the same results but only when members were highly motivated. Gilchrist (*407*) likewise noted that members tend to regroup themselves around previously successful associates, gravitating away from those who were previously unsuccessful. Again, French (*366*) found that members want to leave a failing group. In the same way, Shelley (*946*) observed that a member's level of aspiration varied with the past history of success or failure of his group. Members of groups with a past history of success shared more favorable attitudes toward their group and exhibited greater acceptance of the group decisions compared to their own solutions. Thibaut (*1026*) showed that the extent to which members were attracted to groups could be experimentally manipulated by varying the rewards doled out to the different groups for performance.

Levy (*657*) and Grossack (*440*) both reported that attractiveness was greater among groups of members under instructions to coöperate compared to members directed to compete. (Coöperative groups, as groups, were more rewarding for the members than competitive ones. In fact, a competitive "group," by our definition of "group," may be a collection rather than a true group.) Again, Horwitz (*543*) found that sorority girls were less attracted to a group if they found themselves unable to contribute to the group task and were prevented from doing well.

PARTIAL REINFORCEMENT. As might be expected because of what is known about the effects discussed earlier of partial and total reinforce-

ment during learning, attractiveness and expectancy persist longer for partially successful groups than for totally successful groups placed in a performance situation where no further reward or knowledge of results is given. For example, Lewis and Duncan (*663*) reported that in comparison to subjects winning only part of the time, subjects winning continuously at first on slot machines played by partners indicated lower expectancies of winning on subsequent trials when success suddenly ceased.

HISTORICAL EXAMPLES. History is replete with examples of the effects of effectiveness on attractiveness resulting in the shifting of allegiance from one group, geographical location, or activity, to another. Christian North Africa readily accepted more tolerant Islam in the seventh and eighth centuries in substitution for the more religiously repressive, financially more burdensome Byzantine government. The Saxons shifted from Irish to Roman Christianity, for the latter offered more effective organization and better connections with the Continent. The young Southern male Negro still continues his out-migration to the North and West.

PART III

LEADERSHIP AND INTERACTION

What is interaction?
What is the difference between formal and informal organizations?
What is leadership?
How is behavior changed by leadership?
How is motivation altered?
What is initiating structure?
What are the ways of measuring leadership?
How can attempted leadership be measured?
How can successful leadership be measured?
How can effective leadership be measured?
Why follow the leader?
What is the relation between change and interaction?
What is the relation between leadership and effectiveness?
How does leadership vary with the initial difficulty of the problems facing the group?
Who attempts to lead whom?
Who is likely to be successful as a leader?
Who is likely to be effective as a leader?
When does the self-oriented member attempt to lead?
When does the task-oriented member attempt to lead?
When does the interaction-oriented member attempt to lead?

CHAPTER 5

LEADERS AND LEADERSHIP

There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things.
—MACHIAVELLI, The Prince (A.D. *1513*)

In Machiavelli's observation there are several important concepts to be discussed in this chapter. Leadership may be attempted; it may or may not be successful. Leadership involves a reordering or organizing of a new way of acting, as well as the need to overcome resistance to change.

In this chapter, we will first examine what we mean by interaction, formal and informal. Then we will define and distinguish attempted leadership, successful leadership, and effective leadership. We will conclude by considering how leadership is accomplished and what motivates the would-be leader.

INTERACTION AND ORGANIZATION

DEFINITION OF INTERACTION

Two persons, *A* and *B*, have interacted when one or more acts of *A* have stimulated *B* and when one or more acts of *B* have stimulated *A*. Whether *B* and *A* have been stimulated usually can be gauged from observing their behavior following one another's acts or from verbal reports from *A* or *B*. What the stimulation accomplishes is not a ques-

tion, here. Theoretically, any number of persons may have interacted with each other in a given period of time. This definition is similar to the usual sociological concept of social interaction, such as that presented by Bennett and Tumin (*114*), who define interaction as the process where, upon contact, men influence each other's behavior.

Certain phenomena, particularly among lower animals, may be mislabeled as interactions. For example, the gathering of insects around a lamp at night is not interactional. A stimulus outside the aggregate attracts each of the members of the aggregate separately. Oysters appear to spawn and fertilize coöperatively and are seemingly in interaction. Yet closer examination reveals that changes in water pressure and light of the Spring tide cause both ovulation and sperm emission. On the other hand, starlings keep together in aerial maneuvers by reacting to each other (Tinbergen [*1042*]).

How people respond to each other, the process and product of interaction, is the subject matter of social psychology. Nearly everything that a social psychologist deals with concerns interaction between people (Newcomb [*784*]). This is even more true of a leadership analyst.

FORMAL VERSUS INFORMAL INTERACTION

Interactions are *formal* if they occur between occupants of positions, regardless of who the particular occupants happen to be. *Informal* interaction concerns the interplay between two persons, regardless of the positions they occupy in the group. For example, suppose before any foremen in Plant X can order new equipment over $100 in value they must consult their immediate superior. He in turn submits a request to the chief of the purchasing department who. . . . Each of these communications is formal. It does not matter whether Joe, or Ed, or Bill are foremen, or who occupies the positions of superintendent and head of purchasing.

On the other hand, suppose Joe, knowing that his immediate superior will not approve the purchase, contacts an old friend of his, Ed, who arranges to get the equipment purchased transferred to Joe. The interaction between Ed and Joe depends on them as persons. Other foremen will not interact in the same way. The interaction is informal.

The formal interaction may be a custom which grew from an

originally informal interaction in order to satisfy a need. The formal interaction may be prescribed by higher authority. It may be, like the physician-nurse interaction, mutually accepted on the basis of common professional training.

FORMAL VERSUS INFORMAL ORGANIZATION

When a group contains a network of stable interactions between occupants of positions, we say that the group has been formally organized. When only person-based interactions reoccur consistently, the group is organized informally. Industries, businesses, armies, schools are formal organizations; boys' gangs, neighborhoods, workers who repeatedly eat lunch at the same table are informally organized.

These stable patterns of interaction can be created and studied in the laboratory. Guetzkow (*443*) contrasted three communication networks, "all-channel," "wheel," and "circle." In the "all-channel" network, every member was permitted to send messages to every other. In the "wheel," all messages had to be sent to or from a single member. In the "circle," each member could communicate directly with two adjacent members. During the course of 20 trials, the wheel, in particular, exhibited repeatedly the same sequence of answering among the occupants of specific positions regardless of who they were.

RELATIONS BETWEEN FORMAL AND INFORMAL ORGANIZATIONS. Informal organizations arise within formal ones to adapt more quickly to changing conditions when the formal organization is not changed (Simon [*955*]). A business geared to maximum productivity may find itself during a slack period faced with an informal worker organization holding back production in order to prevent layoffs.

Informal organizations may arise to continue communications failing along more formal lines (Homans [*537*]). If a department head fails to meet regularly with his group to discuss mutual actions and problems, he may be surprised by the development of active cliques sharing their guesses about various motives and future actions. The informal organization may serve to disrupt the formal relations established by authority. Communication by informal interaction is less likely to be accurate. Material unfavorable to the formal system is likely to be disseminated informally (Lichtenberg and Deutsch [*669*]). A group of technicians from different departments may band together to share their grievances

concerning their dissatisfaction with an immediate superior and his boss, leading eventually to some deleterious action.

The informal organization can be used to implement and strengthen the formal organization (Bavelas and Barrett [101]). For example, cognizant of the strong "buddy groups" which arise in military training and combat, the United States Army developed procedures for maintaining the same men together in the same units through training, combat, and rotation home.

Personality influences whether persons will strive for formal or informal organization. In government, for example, the democrat, whether liberal or conservative, emphasizes rule by law, orderly process. The liberal desires changing laws as rapidly as possible to meet changing needs, the conservative is not so ready to "change the rules in the middle of the game." But the fascist, or authoritarian, whether extreme left or extreme right, emphasizes personal relations and deëmphasizes positional ones. The fascist agitator, for example, may have a predestined, personal call from God to combat present "evil forces" and establish a new order. Society is asked to identify with him, his heroics, his toughness, his martyrdom and use of personal power (Lowenthal and Guterman [682]).

NATURE OF LEADERSHIP

TYPES OF LEADERS

The early stages of the study of an area of behavior have been marked often by a wealth of typologies. A list of leadership "types" provided by Fisher (334) suggests that leadership has had many meanings:

Gowin (429): Intellectual *vs.* Authoritative
Conway (236): Compellers *vs.* Exponents *vs.* Representatives
Smith (967): Cognitive *vs.* Authoritative
Barnes (58): Formulators *vs.* Foci of Attention
Nafe (778): Physical *vs.* Intellectual
  Static *vs.* Dynamic
  Impressors *vs.* Expressors
  Adhesive-Dynamic *vs.* Dynamic-Infusive
  Volunteer *vs.* Drafted
  General *vs.* Specialized
  Temporary *vs.* Permanent

Conscious *vs.* Unconscious
Professional *vs.* Amateur
Personal *vs.* Impersonal
Bogardus (*142*): Direct *vs.* Indirect
Social *vs.* Mental
Autocratic *vs.* Paternalistic *vs.* Democrat
Burns (*175*): Intellectual *vs.* Business
Smalls Groups *vs.* Mass Leader *vs.* Administrator

ELEMENTS IN LEADERSHIP

The topic of leadership has covered a wide variety of behaviors, many unrelated with each other. To bring some order to this chaotic state of affairs is a task for a theory of leadership. One step helping to delineate the problem more carefully is the paradigm for the study of leadership developed by the Ohio State Leadership Studies (Morris and Seeman [*765*]). Shown in Figure 3 are the major elements of significance: group factors, group evaluation, leader behavior, individual evaluation, and individual factors. Each of these elements will appear in our theory.

AVAILABLE DEFINITIONS OF LEADERSHIP

In an unpublished review, V. J. Bentz listed 130 definitions of leadership obtained in a sampling of the literature prior to 1949. Fortunately, Morris and Seeman (*765*) have provided classifications of these definitions. A modified version of these helps indicate how we propose to define the same phenomena covered by these definitions.

STATUS VERSUS LEADERSHIP. One cluster of definitions makes leadership synonymous with the importance of one's position. As detailed in Chapter 14, the concept, *status,* can be used to refer to the value of one's position and although status may produce leadership, it is distinguishable by observation and measurement from leadership and can be independent of leadership under specified conditions.

ESTEEM VERSUS LEADERSHIP. A second cluster of definitions defines the leader as focus of attention, as representative of the group. In Chapter 15, this aspect will be examined by using the concept of *esteem,* the value of members to the group regardless of their position. Esteem can also help describe observations about sociometric choice, another way earlier investigators have defined leaders.

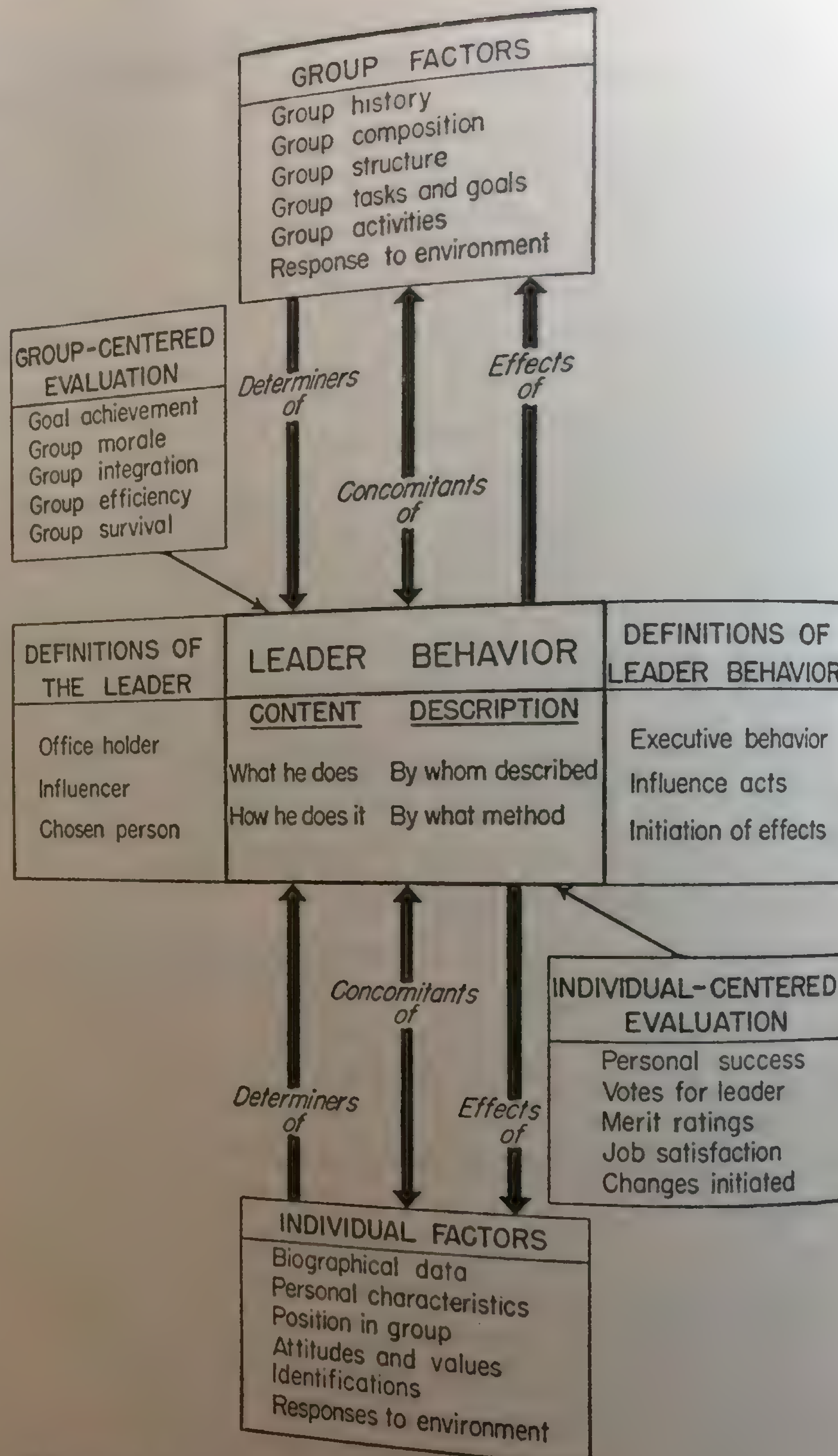


FIGURE 3. Paradigm for the Study of Leadership. (R. Stogdill and A. E. Coons. Leader behavior: its description and measurement. *Bur. Bus. Res. Monogr.* 88, Ohio State Univer., 1957.)

A LEADER IS A LEADER. The leader is often defined simply as anyone who engages in leadership acts. But Stogdill (*991*) demonstrated that persons in different leadership positions engage in different specific behaviors. What *A* does in order to exhibit leadership in position *a* may be different from what *A′* does in position *a′*, yet both bring about changes in the behavior of other members—both lead. Stogdill found that among officers in 46 naval organizations, while all did some coördinating, the function was stressed in the work of the executive officer. Administrative control was most prominent for the district medical officer, technical supervision was most frequent for the electrical officer, and consultation most often done by the legal officer. Rather than conceive of leadership as an invariable set of arbitrarily selected acts, we will try to make more use of functions of leadership (more general means to ends) and introduce acts as items or examples of ways the functions are carried out.

INFLUENCE AND LEADERSHIP. Leadership has been defined as influence. More specifically, it has been equated with any positive influence act; with behavior required to direct a group and with behavior making a difference among groups.

These definitions defining the leader as influencer most closely approximate the definition used in this book. We will use group variables as criteria to evaluate leadership behavior and as means of understanding variations in quality and quantity of leadership behavior.

LEADERSHIP DEFINED

When the goal of one member, *A*, is that of changing another member, *B*; or when *B*'s change in behavior will reward *A* or reinforces *A*'s behavior, *A*'s effort to obtain the goal is leadership.

Any member of the group can exhibit some amount of leadership. Members will vary in the extent they do so. As we have stated (*76A*), in agreement with Gibb (*397*), we consider leadership an interaction between members of a group. Although the groups are usually face to face, this is not considered a necessary condition for the occurrence of leadership. It is rather a usual condition.

This definition is close to those of Gurnee (*447*) and LaPiere and Farnsworth (*635*) who defined leaders as agents of change, as persons whose acts affect other people more than other people affect them. It

also conforms to Smith's (*964*) conceptualization of controlled interaction (p. 147).

Leadership is conceived as an interaction between *A* and *B* rather than merely an act by *A*, because whether or not *A* reaches his goal involves activity or inactivity by *B*. *B*'s activity will reinforce *A*'s behavior, modify *A*'s subsequent actions. Stogdill and Coons (*992*) mention five types of definitions of leader behavior: (1) behavior involved in the execution of a given position; (2) all the behavior of the individual selected as leader; (3) any positive influence act; (4) behavior of any individual that makes a difference in the behavior or characteristics of the group; (5) behavior of an individual when he is directing the activities of a group. Our definition is probably closest to types 3, 4, and 5, with certain qualifications to be considered next.

ATTEMPTED, SUCCESSFUL, AND EFFECTIVE LEADERSHIP

If *A*'s goal is to change *B*, *A* can be observed attempting to change *B*; this is *attempted* leadership. *B* may actually change his behavior as a consequence of *A*'s efforts; this is *successful* leadership. *B*'s change may result in *B*'s satisfaction, reward, or goal attainment; this is *effective* leadership. But before considering these ways of evaluating *A*'s leadership performance as will be done in Chapter 6, let us examine in detail what *A* does to bring about changes in *B*, or what about *B* is changed in order to obtain a change in *B*'s behavior.

HOW BEHAVIOR IS CHANGED

Our definition of leadership differs from a similar type proposed by J. K. Hemphill (Hemphill, Pepinsky, *et al.* [*502*]) mainly in the kinds of changes included in the meaning of leadership. For Hemphill, leadership acts are limited to those concerning alteration of consistent patterns of interaction within the group. Excluded are signals, task analyses, expressions of attitudes, information giving or asking, requests for suggestions, proposals to accept or reject earlier suggestions. We choose a much broader definition.

Each of these acts generally will be regarded as leadership by our definition, although it will depend on the function of the specified act. Agreeing with Barnes (*58*) who defined leadership as a process of focusing the attention and releasing the energies of a people in a

desired direction, we suggest two ways *A* can change *B*'s behavior: by changing *B*'s motivation or changing his habitual modes of responding.

CHANGING MOTIVATION. *A* can alter *B*'s drives both in strength and direction. Stated in different terms, *A* can change what *B* regards as his goals, his rewards, his incentives, and the importance of these. "By pointing out the challenge and rewards of studying law, a professor may arouse or strengthen in a student strong interest in a law career. A Caesar or a football coach may arouse his men to fighting pitch with a speech before battle. For us, these are acts of leadership. Lowering of motivation may also be included. A baseball manager providing strong fatherly reassurance to his 'too tense' team near the end of the race for the league championship is engaged in leadership acts" (*76A*, pp. 147–148).

CHANGING HABITS. *A* can strengthen or weaken relatively responses of *B* to various stimuli. "*A* can change *B*'s behavior by reinforcing certain habits or reducing the strength of these tendencies. Included among these are abilities (habits where we evaluate the response in terms of success in goal attainment) and attitudes, faiths, and beliefs (habits where the response is toward what stimulated it). Another way of describing the same phenomenon is to state that *A* can alter *B*'s cognition, perception, or expectancy of a situation, or *B*'s abilities to cope with his immediate needs.

Concretely, a sales manager who informs his subordinate of the necessity of submitting accurate, clear daily reports of his activities and then occasionally compliments the salesman on his reports when done well and criticizes items when not presented correctly is strengthening a habit pattern to submit desired reports. This is leadership. A counselor of a group in therapy who fails to "reward" a neurotic member for his emotional outbursts by showing alarm, may be serving to reduce a behavioral tendency by the neurotic to exhibit such behavior" (*76A*, p. 148).

As we will detail later, the leader can bring reinforcement directly through his person or because of his position, or he may serve as a cue substituting for reinforcement.

THE MEANING OF LEADERSHIP

ARBITRARY RESTRICTIONS. Changing the goals of *B* and *B*'s ability to obtain his goals are not the only ways of modifying *B*'s behavior. *B*'s

behavior will change if stimulating conditions are changed by *A*. If *B*'s change is a goal of *A*, then leadership has occurred. The permissive leader often brings about change in this way (see Chapter 13). But the act is not leadership, if *A* has no interest in changing *B*'s behavior, but merely makes the same responses to change conditions for *B*, such as would be done by a hotel doorman opening the door when guests approach, so they can enter the lobby.

Altering the integrity of the central nervous system of the organism, *B*, via surgery, injury, drugs, etc., will modify *B*'s behavior. Alterations of the integrity of an organism's central nervous system are excluded, by definition, as leadership acts. By definition, psychosurgery or drug therapy are not leadership acts—although the psychosurgeon or drug therapist have as goals changing the behavior of their patients. On the other hand, behavioral modifications of students or patients are aims in teaching and psychotherapy. Although they usually have not been considered leadership processes, teaching and psychotherapy fall within our meaning of leadership. We cannot differentiate teaching or psychotherapy, by definition, from the more general concept, leadership. Interestingly enough, there are numerous examples in which teaching has been equated with leadership (Valenti [*1070*]). Thus, Herrold (*511*) conceives teachership as leadership in which the teacher assists pupils to express their needs; participates as a member of the classroom group; guides students to define; and organizes course aims, objectives, and appraisals. Since teaching is leading, it is not surprising to find that leading partly involves teaching. Management literature is replete with comments concerning the teaching function of the executive. For example, Tead's (*1019*) *Art of Leadership* devoted a chapter to the leader as teacher. Appropriate are the comments of Mary Follett that the foreman should feel responsible for the education and training of those under him, that the heads of departments should feel the same, and so all along up the line to the chief executive. At a meeting of the American Management Association, she reported, the conviction was voiced that "leader" and "teacher" are synonymous terms (*741*).

In a similar manner, then, therapy, especially group therapy, may sometimes be considered as a problem in leadership (Blocksma [*137*]). And conversely, leadership is often viewed as therapy. The proper handling by the immediate superior of an aggrieved employee is quite similar to the demands placed on the psychotherapist by an emotionally upset patient. Pfiffner (*820*) commented, "The supervisor must do a

clinical job in working with people" (p. 312). Common to both supervisor and therapist is the need to handle personal problems while remaining objective and controlling their own emotions.

NONLEADERSHIP ACTIVITIES OF LEADERS. As noted by Tannenbaum and Massarik (*1017*), we must distinguish leadership from the nonleadership activities of those we call "leader." While both may be involved in the leader's overall effectiveness, our purpose is to develop understanding of leadership, per se. Foremen shuffle papers, compute output figures, check inventories, operate equipment, and so on. Air crew commanders attend briefings, pilot aircraft, examine equipment, and study weather conditions. If leadership is defined as anything done by one who holds an office or by one who is designated a leader, we would find ourselves trying to develop principles encompassing almost all human behavior. We must limit ourselves to the activities common to foreman, air crew commanders, and most persons occupying positions of influence or who are influential as persons.

LEADERSHIP DIFFERENTIATED FROM ALLIED CONCEPTS

To continue our circumscribing the meaning of leadership and to indicate what is and what is not leadership, we distinguish it from a number of related concepts, such as behavioral contagion, influence, and followership.

BEHAVIORAL CONTAGION. Polansky, Lippitt, and Redl (*832*) introduced the concept of behavioral contagion. It occurs when *A*'s behavior changes *B* without the change representing a goal to *A*. *A* yawns and *B* can't help but yawn back. *A* coughs involuntarily and *B* follows suit. *A* reaches for a package of cigarettes in his pocket and *B* suddenly wants to smoke also. If *A* yawns, coughs, or lights a cigarette with the aim of getting *B* to do likewise, *A* is attempting leadership. But if *A*'s acts do not have this goal, the consequence is behavioral contagion. And it appears possible to determine *A*'s goals, according to Steinzor (*982*), who has developed a method of observing and categorizing intentions.

An experimental demonstration of behavioral contagion rather than leadership was effected by Rosenbaum (*886*), who increased the tendency of subjects to volunteer by combining a strong plea with the use of a shill—a stooge who complied immediately with the request. Volunteering was much less when the "plant" openly rejected the request or where none was used.

INNATE CONNECTIONS. Except among the highest animals, most observed coöperative effort is due to "built-in" or conditioned stimulus-response connections. *A* stimulates without reference to *B* and *B* responds. *B*, in turn, behaves in a way unintentionally stimulating to *A*. The alarm calls by animals indicating that a predator is around are often an immediate reaction to various stimuli and develop when animals are reared in isolation where such behavior has no relevance. The courting behavior of the stickleback illustrates the chain of mutual stimulation that can occur, none of which is regarded as leadership. When the female is sighted, the male is stimulated into a zigzag dance resulting in courting behavior by the female. The male shows the nest entrance; the female, seeing the nest, enters. This sets the male trembling, resulting in spawning by the female followed by fertilization by the male (Tinbergen [*1042*]).

INFLUENCE. Influence is conceived to be the changing of *B* by *A* without *A* and *B* necessarily being members of the same group. A radio announcer may influence members of a scattered audience to buy a particular toothpaste without our observing the announcer and without the audience being in a collection of persons *which collection as such* is perceived to be rewarding to the members. Or leadership may be viewed as influence occurring among members of a group. The distinction is of some importance. Because it occurs in a group, accepting leadership acts usually is followed by some effects for compliance. But the results of accepting influence outside the group situation may be less apparent to both the influencer and to the influencee. The radio announcer does not know the effect of his message. The listener does not necessarily consider the significance of not complying. Lazarsfeld, Berelson, and Gaudet (*640*) recognize this distinction, suggesting that leadership through personal contact is more flexible than the influence of mass media as well as different in other respects.

FOLLOWERSHIP. Our definition of leadership requires an acceptance of cause-effect relationships. But both the ancient Chinese, such as Lao-tse, and modern logicians find fault with specifying such sequences. The simultaneity or order of two exact events is not absolute but depends on who is observing the events. If we observe *A* and *B* in interaction, the question as to who is leading and who is following may depend on whose actions we observe first. Sometimes, therefore, it becomes difficult to determine who is leading whom and who is follow-

ing whom. For example, we observe a foreman directing one of his subordinates to go on vacation from July 1 to July 20. We may miss the fact that the subordinate—a technician, hard to replace—has previously intimated the possibility of changing jobs because of difficulties of scheduling vacations early in July at the same time as his brother-in-law. Who is leading whom?

Certain patterns of followership behavior can be similar to leadership in that a given follower *B*, whose behavior *A* desired to change, can, in turn, affect *A*'s behavior by accepting or rejecting *A* as a change agent. Thus, for example, passive resistance by a follower can bring about changes in the leader. Passive resistance and other followership patterns are restricted forms of leadership. They are restricted to those influence acts in a group aiming to alter the behavior of a would-be agent of change who in turn is engaged in attempting to change behavior of the supposed followers. This circular conception of leadership-followership-leadership is consistent with our emphasis on their interactional nature. Moreover, it agrees with Ackerson (*4*), and Hackman and Moon's (*452*) observations of the similarities rather than the differences between who leads and who follows.

Followership and leadership are not negatively related but are to some extent the same process. In fact, as noted by Hackman and Moon (*452*), the persons selected sociometrically for positions of leadership are likewise chosen for followership positions. Persons rejected for one are rejected also for the other. Ackerson (*4*) likewise suggested that the leader in one situation might be more likely than a social isolate to take the follower role in another situation. Pigors (*824*) listed four types of followership, two of which are difficult to distinguish from leader behavior. *Constructive* followership of the intelligent assistant clearly has much in common with leadership. The constructive follower carries out orders but exhibits judgment and discretion in doing so, offering advice when necessary. *Subversive* followership of the self-interested man or the disloyal traitor does likewise, but for different reasons. *Routine* followership of the faithful subordinate and *impulsive* followership of the hero worshipper have less in common with what we mean by leadership.

In the democratic ideal, leader and follower may be confused. The elected executives supposedly hold office to serve the electorate. Some elected officials regard themselves as messenger boys for their constit-

uents; while others, once elected, regard themselves as directors, educators, and proponents of change (Tait [*1012*]).

We may find it impossible to treat in the same discussion the concepts of leadership and followership. We can avoid contradiction by discussing them separately in a manner analogous to Bohr's formulation of complementarity (*1106*). "The use of certain concepts in the description of nature automatically excludes the use of other concepts, . . . in another connection . . . equally necessary for the description of the phenomenon" (p. 374). One cannot determine the momentum and position of an electron at the same time, nor would such a discussion have any meaning.

VICARIOUS EXPERIENCE. The preceding concepts of followership may all relate to the more general notion of vicarious behavior, "playing the part of another." Imitation, copying, identifying, and role playing are types of vicarious experience varying from mechanical following to adopting in a very general manner the "way of life" of another person or group (Lewis and Duncan [*663*]). For our purposes, whether vicarious behavior involves leader-follower relationships depends on whether the model to be imitated or copied has this as a goal; that is, whether being imitated is potentially rewarding to the model.

LEADERSHIP BEHAVIOR

Now that leadership has been defined and distinguished from similar concepts, some of the behavior that is usually involved in leading in a variety of settings can be specified. Since leadership is accomplished by changing the goals of others or by providing ways for others to obtain their rewards, leader behavior usually focuses on motivating others or initiating means for others to cope with their needs. The two forms of behavior tend to be independent of each other. Observed leaders may emphasize one or the other, depending on their own personalities, the nature of their situation, and those they are trying to lead.

LEADERSHIP AND ALTERING MOTIVATION

Motivation can be changed either by altering the threat of punishment or the hope of reward of members as individuals or as a group. Motivation will change as new goals or potential rewards are made more visible, replacing older ones through persuasion (as described in Chapter 9) or by coercion or permissive means (as described in Chap-

ters 12 and 13). A leader may increase other members' seeking of recognition by stimulating each individual separately or by stimulating the group as a whole by emphasizing the importance of group success as the key to the goal of individual recognition.

LABORATORY RESEARCH. Small group research in the laboratory has not focused much attention on the leader as a motivator. There may be a reason for ignoring this aspect of leadership in laboratory studies. Often the motivator in laboratory studies is the experimenter rather than the emergent or appointed leader of the group of experimental subjects. Few experimenters seem willing to explore their adequacies as motivators of experimental subjects—but this is what would have to be done if they are to investigate the motivational component of leadership of laboratory experiments as they often have been conducted. Studies of volunteering as laboratory subjects such as Rosenbaum's (*886*), described below, are the only investigations that have examined this issue.

MOTIVATING MASS AUDIENCES. Motivating large groups is one of the main services performed by the charismatic leader, the persuasive rabble-rouser, and the inspirational speaker. For example, Rosenbaum (*886*) obtained the most volunteers for an experiment by using strong pleas for coöperation and a compliant "shill." Less volunteering occurred when requests for volunteers were less enthusiastic or the experimental "plant" was not used or actively rejected the appeal.

Numerous commentators have devoted attention to this kind of leadership. Nafe (*778*) described the "dynamic-infusive leader," a leader who sets off a force (one who energizes the group to move toward a goal). He uses slogans, war cries, flags, to arouse memories and maintain motivation. Smith (*962*) spoke of leadership as the management of interindividual tensions. Lindesmith and Strauss (*671*) describe in some detail various means used to energize or arouse groups.

> To provoke excitement it is better to have your audience standing, close together if possible, rather than seated in standardized, fixed seats. The singing of songs helps to break down "social distance"; makes people feel more akin; calls up common memories, pleasant or unpleasant. Singing also sets up rhythmic movements in the crowd, which help to break down barriers of individual reserve and to increase general feelings of excitement. Singing takes their attention off their own individual responses as do colorful flags, striking uniforms, stirring music, torches, and other dramatic stage effects.

> Night meetings are probably more effective than daytime gatherings. The Nazis were past masters in planning and setting the stage for meetings of this kind. The speaker himself must be dramatic; he must strive for drama, excitement, rhythm, and tension. He may plead, accuse, command, cajole by turns. Whatever he says must fit into his listeners' categories of experience, must be couched in their language. To arouse them he must utilize their own stereotypes, slogans, emotions, and memories, but he must subtly shape them for his own ends. Hitler in his speeches, for example, drew on German middle-class hatred of the English, the French, the Communists, the Jews, the big business corporations, war reparations, and the Versailles Treaty.
>
> The responses of the audience indicate to the skilled demagogue whether or not it is being carried along. If untouched, the audience remains a stolid and unresponsive aggregation of individuals; but if it catches his excitement and tenseness it responds in kind. People may yell, clap, stamp, whistle, gesticulate, or hurl imprecations at their absent enemies. As the barriers break down, persons become less self-conscious, speaking and shouting to each other spontaneously (pp. 492–493).

Some care must be exerted by the would-be leader. If he uses negative appeals, such as threat of death, he may be less likely to arouse his group than if milder threats are used. Mistrust appears to occur of those arousing severe negative emotional appeals (Halfner, [*453*]).

MOTIVATION IN FORMAL ORGANIZATIONS. Motivating subordinates commonly is required of anyone occupying a position as a formally appointed leader. According to Gibb, Platts, and Miller (*404*) some traditional functions of the appointed leader include energizing members and punishing violators of rules. Katz (*591*) found that effective industrial leaders—those whose departments were productive—tend to spend more time than ineffective leaders in motivating their subordinates by building them up for better jobs, by supporting them for these better positions, and by keeping them informed on how well they are doing. Mentioned by Roach (*867*) among 15 factors of leader behavior describing first-line supervisors were rewarding employee performance and showing consideration. A factor analysis by Rupe (*894*) of the Purdue Rating Scale for Administrators and Executives revealed two factors, one concerning motivation, the other concerning ability. Designated "Social Responsibility to Subordinates and Society," the motivation factor was high among executives who recognized and rewarded meritorious subordinates and complimented and thanked

subordinates. A survey reported by Carter (*194*) of behaviors associated with being an outstanding military or civilian leader included showing consideration of subordinates. Likewise, Wickert (*1115*) reported consideration for his men a necessary attribute of the successful combat crew leader. Berkowitz (*119*) identified "behaving in a nurturant manner" as one of several factors describing behavior of B-29 air crew commanders. A critical-incidents analysis of Air Force officers in Far Eastern combat included as clusters administering punishment or corrective action and employing verbal devices to effect motivation (Ruch [*892, 893*]).

CONSIDERATION. While there are two ways to change the level of motivation of others—by threats of punishment, or by promises of reward—factor analytic studies of leader behavior in American formal organizations indicate that a single dimension can be used to describe how leaders vary in their efforts to motivate. At one extreme are found highly "considerate" leaders described as frequently seeing that subordinates are rewarded for a job well done, keeping subordinates in good standing with those higher in authority, expressing appreciation for good work, stressing the importance of satisfaction among subordinates, maintaining and strengthening the self-esteem of subordinates by treating them as equals, making subordinates feel at ease when talking with the leaders, remaining easily approachable, putting subordinates' suggestions into operation, and getting the approval of subordinates on important matters before going ahead. At the other extreme on the same dimension are inconsiderate supervisors who frequently demand more than can be done, who criticize subordinates in front of others, who treat subordinates without considering their feelings, who "ride" subordinates for making mistakes and who frequently deflate the self-esteem or threaten the security of subordinates by acting without consulting them, refusing to accept suggestions, and refusing to explain actions (Fleishman [*341*]).

Factor analytic studies and item analyses of the descriptive inventories developed to measure the amount of consideration shown by supervisors suggest that a unifactor, internally consistent scale suffices to describe this behavior. A supervisor who earns a high score will emphasize consideration, promise, reward, and support as his motivating technique. A supervisor who earns a very low score must do so by

being described as frequently exhibiting threatening, deflating, inconsiderate behavior. Theoretically there are two ways a supervisor could earn a score in between either extreme. He could be described as exhibiting neither considerate nor inconsiderate behavior frequently, or he could be described as doing both frequently. But the latter possibility is a rare occurrence, according to internal consistency analyses of the scale. If a supervisor is described as frequently treating people without considering their feelings, he would *not* be described as frequently consulting his subordinates before acting.

EVIDENCE. Eleven field studies in industrial, military, business, and educational organizations to develop and evaluate the scale provide firm experimental support for using "consideration" as one of the dimensions of leader behavior (Stogdill and Coons [*992*]). From 1790 items describing leader behavior (Hemphill [*492*]), 150 were selected and classified into 10 clusters as follows: initiation, membership, representation, integration, organization, domination, communication-up, communication-down, recognition, and production (*499*). Descriptions of 357 leaders of a wide variety of groups were obtained by respondents checking how often each item of behavior was exhibited by the leader in question. One of the three orthogonal factors emerging from a factor analysis of the 10-cluster scores was called "maintenance of membership." A leader earned a high standing on this factor if he stressed making himself socially acceptable in his interactions with others.

Halpin and Winer (*468, 469*) administered a modified version of the Leader Behavior Description Questionnaire of Hemphill and Coons (*499*) to 52 air crews flying B-50 bombers to have the 300 crew members describe their commanders. Almost half of the variance in described leader behavior was accounted for by a factor they designated "consideration." Items highly correlated with the factor included: does personal favors for crew members, .68; looks out for personal welfare of crew, .70; treats all crew members as his equal, .81; is friendly and approachable, .81; and finds time to listen to crew members, .81.

Other factor studies revealed similar factors in accounting for leader behavior among combat infantry squads, Army officers, and Naval fleet officers. These factors were labeled "successful interpersonal relations" (Wherry [*1107*]), "social relations" (Clark [*223*]), and "consideration or motivation" (Glickman [*411*]).

LEADERSHIP AND INITIATING STRUCTURE

Many group situations exist where the basic difficulties or resistances to change are due to members' inabilities to change rather than to lack of incentive. Thus, members report lack of abilities and facilities as one of the important sources of group inefficiency (Bass [*63*]). When members lack the abilities to perform the new more rewarding or effective behavior, or when the structure or pattern of interactions is inadequate and the members are unable rather than unmotivated to select and have reinforced new modes of interaction, changes in the members' behavior result as a consequence of *initiation of structure* by the leader.

When faced with new conditions, an unfamiliar situation, a problem or barrier to immediate goal attainment, in order to cope with the situation, the "unadjusted" person must discover what behavior leads to the goal. The typical situation is complex, containing many relevant and irrelevant clues. Often a seemingly chaotic, meaningless, ambiguous confusion of stimuli must be "organized" or perceived in an orderly or "structured" way prior to discovering the correct response among many possible alternatives. In the laboratory, we can emphasize one aspect or another of this process. If we restrict the stimuli, presenting an already structured pattern but permitting a variety of responses prior to solving the problem, we describe the process as learning. If a variety of stimuli are permitted initially, but the responses restricted, the process of organizing or structuring the stimuli more often is described as perception or discrimination. In life, perception and learning, part of the same process viewed with different emphasis, are both involved when a person faces a barrier to his goals. One way he can reach his goals is to have another person present to him a possible "structure" for the hitherto unorganized situation. This presentation is an initiation of structure, an attempt to provide more organization of the situation for the person with a problem, to change a person's behavior by causing a change in his perception of the situation. If intentional and occurring in a group, initiating structure for another member is clearly leader behavior. This behavior appears to include various leadership functions listed by Krech and Crutchfield (*628*): executive, planner, policy-maker, expert, arbitrator, mediator, and ideologist.

Initiating structure corresponds closely to Nafe's (*778*) notion of the

leader as one who restructures members' perceptions. Popa (*834*) said the same in different words: the leader adapts or changes the "social" environment to suit his needs by means of his intelligence, special talents, sense of responsibility, and ability to anticipate social events. Following a survey of the literature on leadership, Suttell (*1008*) offered five areas of structuring behavior:

A. *Instructing*
  1. Describing task and goal
  2. Relating members' tasks and how they interlock
  3. Indicating that common goal depends on each member performing

B. *Supervising*
  1. Checking performance of each member
  2. Correcting errors: notifying when errors occur, giving specific reason, correcting explicitly and giving reasons
  3. Leading discussions of performance effectiveness

C. *Informing*
  1. Indicating usefulness of information
  2. Indicating why it is offered by leader
  3. Adding explanations when one member informs another
  4. Indicating why leader seeks information

D. *Ordering*
  1. Giving reasons for order
  2. Delegating or removing authority

E. *Deciding*
  1. Giving reasons for decision

ISOLATION OF FACTOR. The designation, "initiating structure," was introduced in the previously cited analysis of Halpin and Winer (*468, 469*) of the leader behavior of air crew commanders. Accounting for one-third of the total variation in behavior attributed to commanders, initiating structure was high among leaders emphasizing the following: trying out their new ideas on the crew, making their attitudes clear to the crew, assigning crew members to particular tasks, making sure their part in the crew is understood, asking that crews follow standard procedures, and maintaining definite standards of performance. "Consideration" and "initiating structure" accounted for 83 percent of the differences in the crew commanders' behavior. Fleishman's (*341, 342*) modification of the scale for industrial use isolated items of leader behavior highly correlated (above .60) with initiating structure, such

as talking about how much should be done, insisting on having things done in a standard way, seeing that subordinates work to full capacity, offering new approaches to problems, emphasizing the meeting of deadlines, and deciding in detail what shall be done and how it should be done.

Separate studies among employees, foremen, and aviation cadets found both scales, "initiating structure" and "consideration," of high internal consistency, and adequate in reliability as estimated by correlations between raters describing the same leaders and between repeated descriptions. Moreover, the scales maintained their independence of each other, indicating the utility of using both to add to understanding leader behavior (Fleishman [*343, 344*]).

SUPPORTING ANALYSES. Several other related Ohio State Leadership factor analyses emerged with dimensions of leader behavior paralleling initiating structure. The earliest (Hemphill [*492*]) produced an independent factor, group interaction facilitation behavior. Included were such behaviors as organizing and communicating. Stogdill, Scott and Jaynes (*992*) uncovered a similar factor highly correlated with delegating, organizing, and integrating behavior by naval officers.

Numerous other military and industrial studies found initiating structure or similar activities of central importance in describing leader behavior. In an analysis of sociometric data from combat infantry squads, Clark (*223*) uncovered a group orientation factor correlated highly with being helpful. Competence and perseverance clustered together for Wherry (*1107*) in an analysis of Army officer ratings.

Again, in a survey of supervisors in 52 organizations, Eisenberg (*297*) found that skill in training subordinates was considered an important attribute of a successful first-line supervisor. Among behaviors displayed by outstanding military and civilian leaders according to another survey were (1) performing professional and technical specialties successfully; (2) initiating and directing action; (3) training men as a team; and (4) making decisions (Carter [*194*]).

Preston's (*836*) critical-requirements analysis for Air Force officers included planning, initiating, and directing action; performing technical and professional specialties; handling administrative details; and supervising personnel. A similar critical-incidents analysis of Air Force officers in combat by Ruch (*891*) uncovered such behaviors as organizing, coördinating activities within groups, planning ahead, originating

new methods and devices, adjusting to situations, making decisions, disregarding (or changing) specific orders, and delegating authority.

RELATED FACTOR ANALYSES. Berkowitz (*119*) factor-analyzed "guess-who" descriptions of 50 B-29 crews, yielding factors such as behaving with an awareness of situational needs, maintaining standards of performance, and maintaining crew coördination. A factor analysis of a critical-incident check list of the performance of fleet officers by Glickman (*411*) included as factors initiative, organization and administrative work, and coördination. Similar factors emerging in an analysis of 390 descriptions of white collar supervisors were direction of employee performance and job knowledge (Roach [*867*]). Again, an analysis of the Purdue Rating Scales for Administrators and Executives revealed a factor, executive achievement, involving such items as selecting equipment wisely, planning well, understanding and knowledge of field (Rupe [*894*]).

INITIATING IN SMALL GROUPS. A conference leader aims to assemble, select, and evaluate facts, reach group decisions, and develop and execute plans. In order to foster these purposes, he must learn how to initiate structure by becoming more receptive to new ideas and methods, by recognizing new responsibilities, by developing better understanding of problems, by learning how to organize the group's thinking, and by learning to express his attitudes (Standard Oil [*980*]). Similarly, Gibb, Platts, and Miller (*404*) include among traditional functions of the leader coördination, initiating, defining group activity, directing action, setting standards, allocating responsibility, interpreting rules, helping and informing others, finding and collecting information, and exercising control by suggestion.

Initiating structure has played a prominent role in analyses of a variety of empirical studies of small group leadership. For example, Shriver (*953*) clustered together such leader behaviors as organizing, directing-suggesting, insightful behavior, and goal-orienting. Sakoda's (*897*) factor analysis of the OSS situational test results produced a factor of intelligence including such traits as observing, reporting, and propaganda skill. Similarly, an analysis of small group ratings by Couch and Carter (*241*) yielded a group goal facilitation factor involving ratings of coöperation, efficiency, adaptability, and being pointed toward group solutions. A large number of analyses of the leaderless group discussion consistently support the contention that the emergent

discussion leader clarifies the problem, initiates action, and offers solutions to the problems to a much greater extent than the average discussion participant (Bass [*64*]). Bales, Strodtbeck, *et al.* (*50*) reached similar conclusions.

Carter, Haythorn, *et al.* (*199*) found discussion leaders were much more likely than nonleaders to propose courses of action for others and give information in carrying out action. They recorded the extent leaders showed this behavior. The results appear unequivocal. While 47 percent and 43 percent of "diagnosing situation" behavior was attributed to appointed and emergent discussion leaders respectively, only 18 or 19 percent was so attributed to those low in observed leadership. Similar results were found for reasoning and mechanical assembly situations.

CHAPTER 6

MEASUREMENT AND EVALUATION OF LEADERSHIP

A certain man of Cheng was going to buy himself a new pair of shoes. He took measurements of his feet, but he forgot to bring the measurements along when he went to a shoe shop. He returned home for the measurements but the shop was closed by the time he went back to it so he could not buy any shoes. Someone asked him, "Why didn't you let them try the shoes on your feet?" And the man replied, "I would rather trust the measurements than trust myself."

—HAN FEI-TSE (d. 234 B.C.; *tr.* *Lin Yutang*)

The absurd man of Cheng may not have been so absurd after all. Careful, repeated, exhaustive, and objective measurements might have provided better-fitting shoes than possible from a single brief trial of the shoes on the feet inside the crowded shoe store, subject to the salesman's pressures and the need to distinguish among different feelings of comfort produced by a variety of shoes tried on. Shifting from the psychophysical phenomenon of fitting shoes to a social phenomenon such as leadership, which will be discussed in this chapter, the value of objectivity and comprehensiveness of measurement becomes more apparent, particularly when we wish to make public what we think we have discovered about the phenomenon. Once we have a rationale for

understanding behavior, we must have measurements to promote and communicate our understanding. . . . The language of number sometimes provides a certain minimum standard of integrity in communication, without which cooperation of human beings on some kinds of subjects is almost fruitless . . . Lord Kelvin declared, if you can't measure it, you don't know what you are talking about (Wheeler *[1106]*, pp. 366, 368).

In an unpublished summary of research on personal factors in leadership completed before 1957, R. D. Mann observed that conclusions about leadership depended a great deal on how the leadership was assessed and by whom. For example, when peer ratings were the basis of assessing leadership, leadership correlated positively with adjustment in 97 percent of such studies. But adjustment was found positively correlated with leadership in only 76 percent of studies where leadership was based on observers' ratings and where leadership was inferred from status held. Similarly, extroversion correlated positively only in 50 percent of studies with peer ratings of leadership, while extroversion correlated positively in 70 percent of investigations with observed leadership and in 86 percent of studies with leadership inferred from status. How leadership is measured and evaluated will determine to some extent the kinds of generalizations and understandings which will emerge.

APPROACHES TO MEASURING AND EVALUATING LEADERSHIP

Now that leadership has been defined in terms of what one member does to change another's behavior, it is appropriate to examine ways of evaluating the success and effectiveness with which such changes are made. A variety of techniques are available to assess leadership, particularly successful leadership. In the past, essay evaluations of case histories, sociometric choice by peers or others, job placement, ratings, categorizations, projective and objective procedures have been used. Most of these attempts have concerned leadership without reference to whether it was merely attempted rather than successful or effective. The tendency for both observers and participants to find it difficult to readily discriminate between attempting and succeeding revealed in a comparison (Bass *[73]*, suggests that while nonobjective methods may suffice to assess leadership, as leadership, independent objective procedures are more desirable when distinctions are desired to test

hypotheses concerning changing relations between attempted, successful, and effective leadership.

Following a brief review of the less objective methods of assessing leadership, possible objective methods will be suggested for independently assessing attempted, successful, and effective leadership.

WISDOM AND INTROSPECTION. Early attempts to describe leader behavior were characterized by the "armchair" listing of traits found among successful leaders by the leaders themselves, by observers, or by surveyors of the leadership literature. Another similar indirect approach was based on administering personality inventories and other psychological tests to designated leaders and then inferring leader behavior from the traits found to predominate among the leaders (Stogdill [*988*]).

CASE HISTORIES. Case history evaluations are a common approach employed by many social scientists, such as applied anthropologists, to assess leadership in primitive societies, industrial groups, and volunteer agencies. An example is Kessing and Kessing's (*612*) study of communications among the elite of Samoa. Often associated with this process is intensive interviewing of present or former members of the group to obtain their recollections and present opinions. Heavy reliance on such methods can be found in the works of Elton Mayo (*731*) and F. J. Roethlisberger (*878*) of the Harvard Business School, or Burleigh Gardner (1947) of the University of Chicago. Analyses of case histories, as such, were employed by Ackerson (*4*) and Brown (*166*). Examination of biographies to assess leadership was exemplified by Cox's (*247*) study of the biographies of 300 geniuses. Less formal attempts of this sort began with early historical writing. Most well known is Plutarch's *Lives*, a comparison of paired Roman and Greek leaders.

CHOICE. Stogdill (*988*) listed 28 major studies assessing leadership inferred from choice of associates, and suggested as most exemplary the work of Jennings (*580*). Although only given prominence in the past two decades by the sociometrists, the procedure is found in Terman's (*1020*) leadership experiment. In our theory, such sociometric measurements are regarded as more directly assessing esteem, which usually but not always produces leadership.

Nominations by observers outside the group have also been commonly employed (e.g., Burks [*173*]).

Studies of election results have been of prime concern to political

scientists, public opinion analysts, and related social scientists. Attention here is often centered on voting behavior rather than on leader behavior stimulating the voting. However, Sanford's (*902*) work illustrates how political elections are related to the personality needs of the voter and the stimulus properties of the office-seekers. Again, leadership is only inferred indirectly.

JOB PLACEMENT. *Coups d'etat* and other forms of usurpation, as well as observed and recorded legitimate administrative acts, provide another means of inferring leadership indirectly from status attained. Appointment to office and tenure provide guides to identifying and studying leader behavior, but do not directly assess leadership, as defined in our theory. Stogdill (*988*) mentioned 33 psychological studies of persons occupying positions of leadership varying from fraternity presidents to government administrators.

RATINGS. Most common at present is the use of specially developed rating procedures and check lists for studying leader behavior. For example, the report of Stogdill and Coons (*992*) cited in Chapter 5 illustrates the factorial approach to construction of behavior check lists, beginning with empirical surveys and concluding with theoretically oriented, factorially independent scales of leader behavior. These scales have been used to describe leaders by superiors, associates, and subordinates, as well as by leaders themselves (*76A*).

The widespread use of peer ratings or buddy ratings in the military services is another example of using ratings to assess leader behavior (e.g., Hollander and Webb [*530*]).

CATEGORIZATIONS OF OBSERVED BEHAVIOR. More objective and theoretically based in their initial construction are the categorizations of roles by Benne and Sheats (*111*) and the interaction process analysis of Bales (*48*). Thelen (*1024*) has also developed another method of categorizing behavior in groups based on Bion's work-emotionality concepts. In Benne and Sheat's methods, observers note which of many defined roles are played by the various members of the group. For example, successful discussion leaders of initially leaderless discussions were reliably observed playing the roles of initiator-contributor, opinion-giver, elaborator, compromiser, orienter-evaluator, energizer, and encourager (Bass [*64*]). Bales' procedures reduce subjectivity further. Each action by a member is categorized in one of 12 types falling into four areas. The frequency with which each member exhibits

each type of behavior can be measured with high observer reliability. Again, leaders in initially leaderless discussions are found to exhibit certain of these behaviors with high frequency, particularly those in the areas of attempting answers and positive socioemotional responses (*64*).

SITUATIONAL TESTS. Increased objectivity, with high reliability and modest validity of measurement, can be obtained by restricting observations to subjects who are placed in a standardized situation, such as the initially leaderless group discussion, and observing, for 30 minutes or an hour, the behavior of discussants trying to reach agreement on some problem (Bass [*64*]). More highly refined situational tests have been developed by the American Institute for Research to assess military leadership (Suttell [*1007*]; Suttell and Richlin [*1009*]; and Hahn [*456*]). First, several hundred officers described specific incidents in which successful or unsuccessful leadership was demonstrated. A total of 28 specific leadership behaviors emerged from an analysis of these incidents. Then, realistic problem situations were developed providing for a number of successful leadership acts to occur. The examinees placed in such situations had to play the role of junior officers responsible for handling the interaction. A typical problem is as follows:

> The examinee is evaluated as the commanding officer of a small ship. He must discuss with Ensign Baker, the ship's engineering officer, an unsatisfactory performance report he is about to submit. Although Baker is highly qualified in the technical skills required, he lacks experience. He has allowed the enlisted men to run his department. This has led to no specific incident in which his department has interfered with the ship's operating efficiency, but his behavior has set a bad example for the men and the other officers on board.

Examiners were provided with check tests on which they indicated whether specific behaviors occurred. Some of these included:

Gives reason for meeting.
Firmly tells Baker he is getting unsatisfactory Fitness Report.
Tells Baker his behavior is bad example for crew.
Asks Baker to explain reasons for his behavior.
Fails to reply to Baker's about department's inefficiency.
Allows Baker to direct conversation.
Tells Baker to shut up, calm down, or raises voice.
Reminds Baker that he was asked and encouraged to improve in his first Fitness Report.

Vacillates in, or changes position on, unsatisfactory Report.
Promises transfer for Baker.
Tells Baker he can be valuable to ship and himself by buckling down to work.
Mentions Baker's fine engineering background.
Tells Baker that a junior officer has much opportunity for responsibility on a small ship.
Mentions constructive nature of Fitness Report. Ends interview definitely.

In studies of 500 Air Force officer candidates, 235 Navy officer candidates and 233 experienced fleet officers, correlations of approximately .60 were found between leadership performances on equivalent problems, indicating a modest degree of consistency in the assessments. Further, several analyses revealed low positive correlations between situational test performance and rated success on the job.

PROJECTIVE SKETCHES. Along with several other investigators, Torrance (*1048*) has presented ambiguous sketches of leader-follower situations to groups. The stories reported by the groups appear to provide reliable indices of the overt effectiveness of leadership within the group. Indirect information about leader behavior has also been gathered by administering the Thematic Apperception Test to business executives (Henry [*509*]). Another projective approach to leadership evaluation was the My Job Contest involving the content analysis of themes of essays by workers at General Motors submitted as contest entries on the subject "Why I Like My Job" (Evans and Laseau [*301*]).

OBJECTIVE ASSESSMENT

If we are interested in developing a theory depending solely on the perception of group processes, the preceding materials may provide the necessary immediate sense data for analysis. If, on the other hand, we also are concerned with understanding, predicting, and controlling leader behavior, as such, it becomes desirable to develop ways of "sensing" the behavior itself. In the theory proposed in this work, leadership has been defined in terms of observed behavior. As detailed in Chapter 2, on the plane of observables there is needed a cluster of similar sense impressions corresponding statistically to the construct, leadership. The bridge by operational definition from the theoretical model to the protocols of the laboratory is likely to become firmer if subjective impressions do not intervene between the theoretical con-

struct and the "world of facts." The facts about behavior are vague. They are doubly difficult to deal with when only gained "second-hand" from observers or group members' reports of what the facts are. We desire additional operations that are, if possible, definite and quantitatively precise; that are repeatable and objective (*76A*).

The experimental study of leadership should be advanced if leadership can be assessed without the constant need to depend on observers' or participants' recollections.

ERRORS OF SUBJECTIVITY. Complete reliance on observers', participants', or subjects' mediation of the raw data to be examined give rise to possible serious error. Viteles (*1078*) illustrates the mistake possible in depending on case history and interview studies. The "Hawthorne" investigators attributed much of the control of behavior in a bankwiring room to informal organization demanding conformance to norms or common standards. Not immediately revealed to interviewers was the animosity of workers toward management because parts were reëngineered when time studies were in error in favor of the workers, and the workers' "stretch-out" of work due to fear of being laid off because of the depressed economy (*76A*).

Depending solely on categorizing observed behavior may be inadequate sometimes because of observer differences. Using the same 13 categories of behavior (a modification of Bales' classification), Bell (*108*) studied leader behavior in ten groups in a laboratory in a northern university and ten groups in a southern school of the same size. Significant differences appeared in the categorized behavior of emergent leaders in each location. Some of this may have been due to overt behavior differences, but it is probable that some was a function of different observers used. The inadequacy of depending on self-appraisals is suggested by Borgatta (*147*), who asked subjects first to write how they would react to the Rosensweig Picture Frustation Test, then to show how they would act; finally, the subjects were placed in the situation. There were no significant correlations among the three methods of response. Again, in a later report, Borgatta (*149*) factor analyzed Bales' categorizations of individuals' actual, role playing, and "paper-and-pencil" projection of the same situation. Only the role playing and the actual behavior were related. Halpin (*465*) reported little relationship between a leader's beliefs about what he should do and what his subordinates say he actually does do. The picture is com-

plicated further by the observation by Gorden (*426*) that members of a group when stating their own opinions tend to compromise what they privately "sense" and what they perceive to be the group opinion on the matter. Mencius (372 B.C.–289 B.C.) recognized the difficulties of depending on single judgments of leader behavior by immediate superiors alone. In paraphrase, his advice to heads of state was, "When all those about you, the ruler, say that a man is talented, do not immediately rush to promote him. Only after his subordinates say so also should you examine him more fully as a candidate for promotion. In the same way, do not rush to demote a man on the evaluation of his superiors alone" (*76A*).

OBJECTIVE MEASUREMENT OF INFLUENCE

Many of the early social psychology experiments on suggestibility provided objective assessments of leadership. "The leader usually was the investigator; the followers, his child subjects. For example, Triplett (*1057*) pretended to throw a ball into the air. Then he determined the percentage (about 50 percent) of fourth to eighth grade children who actually saw the ball go up and disappear. Binet (*127*) assessed the susceptibility to influence by having subjects draw lines indicating their judgment of the length of stimulus lines. The stimuli increased in size up to a certain point. The judgments of the suggestible subjects continued to increase even after the stimuli presented by the leader, Binet, did not increase.

In more recent years, the classic studies by Sherif (*948*) and Asch (*34*) are similar illustrations of objective approaches to the study of influence. Sherif showed how a subject's reports of the movement of a pinpoint of light (actually stationary) could be altered by his hearing other subjects' judgments of the same autokinetic effect. Asch found that some subjects could be made to declare the shorter of two lines was actually longer, if all other members of their group (all experimental 'plants') declared such was the case.

Studies of communication nets initiated by Bavelas (*100*) are another example of the development of objectivity in studying influence and leadership. All communications between members of groups are restricted to the passing of symbols or notes. Objective analyses of who passes what to whom are the basis for testing hypotheses" (*76A*, pp. 153–154).

OBJECTIVE APPROACHES TO MEASURING LEADERSHIP

The possibility of developing relevant, objective, controlled laboratory operations to study leadership is supported by research evidence in a number of ways. Aikman, Lorge, *et al.* (*8*) presented the same problem at four levels of "remoteness from reality." The problem was to plan the movement of five men across a "mined" road. The quality of solutions was equally good at all four levels: verbal description, photographic presentation, a miniature scale model not allowing manipulation, and a scale model allowing manipulation. A review of validity studies of the leaderless group discussion concluded that observed success as a leader in this restricted, artificial, brief situation correlated with the leadership performance of the same persons in real life (Bass [*64*]). Flanagan, Levy, *et al.* (*338*), among several investigators, have shown the possibility of constructing highly reliable situational tests for evaluating success as a noncommissioned officer. The tests were based on critical-incidents analyses of the leadership positions and included initially leaderless emergencies and leaderless small job management, as well as combat and reconnaissance leadership where the examinee was designated as leader in the situation. Test performance predicted merit as a noncom ($r = .46$). Specific acts of effective and successful leadership were observed and recorded. The average agreement among observers' reports was .83 (*76A*).

Maximum control of experimental conditions has been achieved when the group, itself, is simulated. Each member is stimulated in exactly the same way, although each does not realize other members are receiving the same stimulation. Typical of such studies is one by Raven and Rietsema (*847*). Members of the simulated groups are separated. Each is told he is performing a different aspect of the task than the others, but all actually do the same job. Standard notes are sent to each subject, although each thinks they come from the other members. Every subject thus receives the same experience as every other. Blake and Brehm (*134*) have pioneered the application of tape recordings to simulate groups to study susceptibility to influence. Each subject is placed in an isolated booth. He listens to a tape recording that he is led to believe is a group interaction in progress and that he is part of the group. Every "participant" therefore receives identical stimulation. With little modification, coercive, persuasive, and permis-

sive leadership and many related leadership phenomena could be rigorously examined using Blake and Brehm's procedure.

OBJECTIVE ASSESSMENT OF ATTEMPTED LEADERSHIP

As noted in Chapter 5, leadership may or may not be attempted. If attempted, the leadership may or may not be successful; that is, it may or may not result in the changes in behavior of others. If successful in changing others, the leadership may or may not be effective; that is, the changes due to leadership may or may not bring reward to the persons whose behavior was changed by the successful leadership. The operation of the halo effect on ratings makes it difficult to rely on observers' or participants' judgments alone when we are interested in collecting data on both attempted and successful or effective leadership. Fortunately a simple objective operation is available for assessing attempted leadership. This simple way should be considered as one among many possible and is presented here in detail because of its simplicity and elegance not as *the* one operation by which attempted leadership can be measured.

A WAY OF MEASURING ATTEMPTS. The differentiation of attempted from successful and effective leadership was suggested by Hemphill (*497*). However, for Hemphill leadership attempts refer only to acts by one member aimed at restructuring the existing pattern of interaction between that member and others. For us, leadership occurs whenever one member's behavior changes any behavior of another.

The broader meaning we use permits the acceptance of almost any response in initially leaderless discussions as attempted leadership. Participation in leaderless discussions is equated with attempted leadership in such situations, since it is assumed that almost all talk in initially leaderless discussions is directed toward influencing other members primarily by giving opinions, suggestions, and information, and by summarizing and clarifying as well as organizing the topic discussed (Bass [*60*]). Therefore, one operational definition of attempted leadership is the amount of time spent talking in initially leaderless discussions. Number of responses, rated participation, or total time talked may be used. In one recent experiment, as soon as the subjects were seated for testing, each fastened a throat microphone around his neck. Each microphone was connected to an electric timer which was triggered each time the subject spoke. The time in seconds for each of

ten brief problem-solving leaderless discussions was recorded by an assistant. The total time spent talking in all ten brief discussions was the measure of the subject's total attempted leadership (Bass, Pryer, *et al.* [*90*]).

Consistently high reliabilities have been found for this measure. For example, a split-half reliability of .92 was obtained for 95 subjects of low motivation, in groups of five, discussing 12 problems (Bass [*67*]). Reliabilities of .93, .91, and .71 were found for an additional 255 subjects. The lower value was found for highly motivated or stressed subjects (Bass [*74*]).

There are many other ways of objectively assessing the total participation of members in initially leaderless discussions. The frequency of response can be collected; the number of messages transmitted to others where communications must be by notes or symbols are other indices of attempted leadership. In earlier studies, less accurate measures of total time talked were obtained by using observers to push buttons activating a clock each time a subject spoke (Bass [*60*]).

The sheer amount of participation may often be the single most significant observed variation among members in a group. For example, Slater (*957*) found a correlation of .88 between amount of talk and the amount of receipt of communications from others. Mere talking correlated .80 with value of ideas expressed and .75 with amount of guidance displayed (successful leadership?). Participators were even liked more (.38). A variety of analyses of leaderless discussions reveal similar results. Time spent talking correlated .65 with rated success as a leader among sales and management trainees (Bass [*61*]), .77 for 140 sorority girls (Bass, Wurster, *et al.* [*95*]), .93 for 20 college students (Bass [*60*]) and .96 for 36 college students (French [*368*]).

In another connection, Sharp, Brogden, *et al.* (*932*) found in examining interviews that much of the variance in scores yielded by Chapple's Interaction Chronograph (hesitations, failures to respond, interruptions, synchronized responses, adjustment) could be accounted for by the total number of responses of the interviewee and the amount of time he talks in the interview. Total response to ambiguous stimuli such as Rorschach inkblots may also account for much of the variance in performance.

Many studies have recognized that members likely to be identified as changing the behavior of others are the active, the participators, the

energetic, or the talkative. Before a person can change another's behavior, he must attempt to do so. He must talk or participate to a greater extent than the average member. Thus, Olmsted (*795*) noted that the greater a person's participation in community activities, the more likely was he to be regarded as a community leader.

Stogdill (*988*) concluded his review of leadership studies by commenting, ". . . leadership is not a matter of passive status. . . . It appears rather to be a working relationship among members of a group, in which the leader acquires status through active participation and demonstration of his capacity for carrying cooperative tasks through to completion" (p. 66).

We have enumerated previously a variety of ways of assessing success as a leader. While some of these, such as administrative records and appointment to office, are objective to some extent, leadership, as such, is only inferred indirectly from the obtained data. A way is available to study actual success as a leader directly.

OBJECTIVE ASSESSMENT OF SUCCESSFUL LEADERSHIP

Change in member judgment as a result of interaction with others has been studied on a number of tasks. For example, Jenness (*578*) examined the changes in the judgment of the number of beans in a bottle. Asch's (*35*) and Sherif's (*948*) techniques, mentioned earlier, are similar examples. Timmons (*1040*) appears to be the first to have used the differences in correlations among ranked judgments to quantify the effects of group influence. He found the accuracy in ranking solutions to a problem (as measured by the correlation of subjects' judgments with the correct judgments) was greater among subjects given the opportunity to discuss the problem with others. Preston and Heinz (*837*) and Hare (*476*) used rho correlations among judgments by members of a group to measure stability of judgment, initial or final agreement among members, and degree of acceptance of the group decision. Talland (*1013*) found that the correlation between a member's initial judgments and the final group decision was higher among those rated as leaders.

These within-subject correlational procedures offer a way of objectively determining the successful leadership of each group member as well as related indices of group behavior. A number of experiments have been conducted in which on each of a series of test problems, a

group of subjects privately rank-order their initial decisions about the true order of familiarity of five words. Or they may be asked to rank five cities according to size of population. Or they may have to decide on the order of merit of solutions to problems in human relations case histories. Then they carry on a discussion to reach a group decision. They privately register their own rankings again. Finally, the true rankings can be presented to them (Bass, Gaier, *et al.* [*85*]; Pryer and Bass [*840*]).

Earliest data collection was by paper and pencil (Bass [*66*]). Subsequent to these initial analyses, data have been collected either by asking subjects to register their opinions on specially prepared IBM mark sense cards or directly into a specially constructed analog computer. The cards are processed on an IBM 650 high-speed computer and auxiliary equipment to yield the required correlations. If the analog computer is used, the experimenter reads the correlations directly from an ammeter immediately following each problem (Bass, Gaier, *et al.* [*85*]).

MEASUREMENTS OF SUCCESSFUL LEADERSHIP. Successful *public leadership* of a member can be determined on any problem discussion by how much more the group decision correlates with the member's rather than other members' initial decisions, and how much the final group decision after discussion is like the designated member's final ranking compared to how much he had disagreed with others before discussion. Successful *private leadership* can be gauged by computing how much less a member changes his rankings than do other members, and how much more the other members' rankings correlate with his rankings after discussion than before. Relative success as a leader is determined by how much the final decisions of other members correlate with the initial decision of a designated member, rather than vice versa.

The total amount of absolute public or private leadership turns out to be algebraically equivalent to the total increase in agreement occurring in a group as a consequence of interaction. Total relative successful leadership of all members combined is algebraically equal to zero (Bass, Gaier, *et al.* [*85*]).

The reliabilities of these measures of successful leadership are not as high as obtained for attempted leadership. In the same reliability studies of 95 and a total of 255 subjects cited earlier, reliabilities of .55, .59,

.50, and .32 were found for public success as a leader in approximately a half-hour of discussion with four other participants. Reliability was lower when motivation of participants was high. Corresponding figures for private successful leadership were .52, .75, .44, and .30, and they were .64, .61, .29, and .48 for relative success (Bass [*67, 74*]). These reliabilities can be increased by making the problems to be discussed more difficult and by lengthening the time of discussion.

Bass and Flint (*79*) compared the construct validity of the three measures of successful leadership (public, private, and relative) by examining the correlations between the measures and the ability of 255 subjects, their esteem and their rated success as leaders.

The initial accuracy and intelligence of the subjects predicted to some extent their success as leaders, as expected if the leadership measures were truly measuring leadership. Esteem of members by their peers in the group discussions and by their tactical officers in ROTC were also positively related with the leadership measures, as expected. Rated success correlated significantly with actual success as a leader, and, as expected, those with higher measured success as leaders attempted more leadership.

Generally, these correlations were higher when subjects were lower in motivation. This conformed to the fact that the reliability of the leadership measures was higher when motivation was lower. They were also higher generally for relative successful leadership than for the absolute measures, public and private success as a leader.

ASSESSMENT OF EFFECTIVE LEADERSHIP

Chapter 3 attempted to clarify the meaning of effectiveness. In the preceding section, effective leadership was distinguished from successful leadership. If *A* succeeds in changing *B*, and *B* attains his goal as a consequence, the successful leadership is effective. If *B* fails to gain his objective by following *A*'s leadership, the leadership of *A* is ineffective. Effective leadership is exhibited among members high in successful leadership in effective groups. Ineffective leadership occurs when members earn high scores as successful leaders but their groups are not effective.

Without objective procedures, the halo effect may make it difficult to distinguish empirically between successful and effective leadership. Thus, Shartle (*935*) reported that in the case of subordinates' ratings

of leaders at least, there is a tendency for *descriptions* of leader behavior to be directly related to *evaluations* of the leader. Self-ratings will not be satisfactory either. When an administrator describes himself as a leader, this self-description is closer to the subordinates' description of the ideal leader than it is to their description of him. However, members of organizations appear to be less biased when describing their group. Therefore, even if we must depend on subjective measures, we will best be able to evaluate leader effectiveness by obtaining indices of group effectiveness, using these in turn to gauge the adequacy of the successful leaders.

All successful leadership acts are effective for the initiator of the leadership act—but not necessarily for anyone else. (If *A* is successful, he obtains his goal of changing *B*.) Sargent (*905*) agrees, suggesting that anyone who is in a position to reward or punish will tend to become ego-involved in the role and gain personal satisfactions or dissatisfactions from merely playing the role. Again, Sperling (*975*) found a correlation of .46 between a member's satisfaction with a conference decision and the extent it was similar to that member's initial decision. But these situations will not be considered as necessarily illustrating effective leadership, since satisfaction does not accrue to those who carried out the suggestions of the initiator.

Odier (*791*) emphasized the need to distinguish between the successfulness (valence) of a leader and his effectiveness (value). Furthermore, he noted the impossibility of setting up absolute criteria for differentiating the two. Thus, followers may perceive to be effective a leader who ultimately leads the followers to their ruin (e.g., Napoleon, Hitler, Mussolini, Louis XIV, etc.). We have considered this matter in more detail when discussing immediate versus ultimate group effectiveness.

Translated into group concepts, if many members like *B* are changed as a consequence of a leadership act and these changes are rewarding for these members, by definition, the group has increased in effectiveness—become more satisfying or reinforcing to its members. Hence, the increase in group effectiveness is a function of the amount of effective leadership exhibited. This approach is similar to one of Cattell's (*204*) methods of defining leadership; namely, as member activity which results in changing any one of the *syntality* dimensions. It is also similar

to Knickerbocker's (*621*) conceptualization of leadership. Nor is the idea new. Hesiod (*ca.* 750 B.C.) said, "Oft hath even a whole city reaped the evil fruit of a bad man." In the Book of Chou (628 B.C.) is found, "The decline and fall of a state may arise from one man. The glory and tranquility of a state may also arise from the goodness of one man." The meaningfulness of equating leader effectiveness and group effectiveness is illustrated by Stogdill and Koehler (*993*), who found that ratings of overall effectiveness of submarine crews were highly related to leadership ratings of the commanding officer. Similarly, Stouffer, Suchman, *et al.* (*1001*) obtained a correlation of .75 between noncommissioned officers' satisfaction with their job situation and their evaluation of the adequacy of their officers. For privates, the correlation was .38. (That these correlations were not higher is due partly to variations between groups in food, housing, and recreational conditions unrelated to the performance of the immediate leaders in the situation.)

EXAMPLE OF AN OBJECTIVE APPROACH. A particular objective method for measuring effectiveness of leadership can be derived from the same means used to determine an objective way of measuring successful leadership. Suppose a group is rewarded for the accuracy of its decision. The increase in accuracy over the individual members' initial accuracy as a consequence of discussion provides a measure of group effectiveness—the extent the group is more rewarding to individuals than their own isolated activity. He who successfully leads a highly effective group exhibits effective as well as successful leadership. In the specific ranking of solutions to problems mentioned earlier, the public effectiveness of a group is how much the group ranking is more accurate than the average initial private ranking—that is, how much the group decision correlates more highly with the true or criterion rank order than does the average initial ranking.

Private profit from discussion or individual effectiveness is the extent a member's final private ranking is more accurate than his initial one. Pryer (*839*) found the average initial accuracy in judging the population of five cities to be .15 for 13 groups of college girls, while their final private accuracy was .28, and the accuracy of their group decision was .30. The private individual effectiveness of these subjects therefore was .13, and the public effectiveness was .15. The rho correlations among the various rankings also provided measures of successful

leadership by gauging how much members changed their opinions from before to after the discussion, how much they, as individuals, accepted the group decision, as well as how much the group decision reflected each member's initial opinion.

In Pryer's study, these groups yielded a correlation of .32 between judgments before and after discussion. Acceptance of the group decision was reflected in the appropriate correlation of .70, while the extent the group decision reflected initial judgments was given by a correlation of .27. Similarly, correlations were obtained measuring how much members agree with each other and how much they coalesce in agreement following discussion. In Pryer's analysis, agreement before discussion was gauged by a correlation of .10. After discussion it was .63. *Private coalescence* was therefore .53. *Public coalescence* (the change from initial agreement to acceptance of the group decision) was .60. If coalescence is rewarding or is a goal of the members, the measurement of coalescence lends itself to another set of evaluations of the effectiveness of successful leaders. Coalescence is often indicative of interaction effectiveness; thus, the method may provide a way of measuring interaction effectiveness of successful leadership.

CHAPTER 7

LEADERSHIP AND GROUP EFFECTIVENESS

He serves me most who serves his country best.
—HOMER, The Iliad (ca. *800–1100* B.C.)

Why follow the leader? This is the question answered by the quotation from Homer and forms the subject of this chapter. The leader is followed because this is seen as the way to achieve the group's goals, resulting, in turn, in reward for the membership.

The arguments to be advanced are briefly as follows:

Why does a change occur in a group? Changes come about to solve problems, to overcome obstacles blocking the path to goals and rewards. How does change occur in a group? It occurs primarily as a consequence of interaction. One member's actions or suggestions change another member's behavior. But, by definition, this is leadership. Thus, the solution of problems in groups usually involves the occurrence of leadership. The more difficult the problems, the more change and the more leadership necessary. If no problems face the group, no leadership occurs.

WHY DOES CHANGE OCCUR IN A GROUP?

By definition (Chapter 3), a group is any collection rewarding to its

members, or any collection serving its members to avoid punishment. Group effectiveness is the extent the members are rewarded or the extent they avoid punishment by belonging to the group.

Suppose we observe a group at a certain state of ineffectiveness. Members have goals yet to be obtained by activity within the group, goals obtainable if the group completes its task or if the process itself is rewarding.

Paralleling Znaniecki's (*1155*) "law of mobilization," which declared that individuals move in a direction of experience perceived as more satisfying than in a stable line of conduct, we suggest that changes must occur in behavior in order for the group to increase in effectiveness and in order for members to obtain rewards or avoid punishments through group action. If everyone is satisfied with current conditions, no changes will occur. If dissatisfaction exists, then changes will occur in the direction of reducing this dissatisfaction. This is illustrated by an analysis of acculturation in a Guatemalan village by Gillin (*409*), who noted that old customs were maintained by villagers as long as they were satisfying, new ones adopted only if they were more rewarding. Similarly, Sussman (*1006*), commenting on spontaneous group formation, noted that when accustomed behavior does not facilitate the attainment of perceived goals, new behavior modes are attempted.

Customs such as Chinese avoidance of unboiled water, Catholic avoidance of meat on Friday, or Hebrew avoidance of pork, may arise initially as ways of maintaining health or economic standards. They may survive through secondary reinforcement. The no-longer-necessary behaviors become cues or symbols; once immediately rewarding, now only indirectly so. Although the possibilities of trichinosis have been minimized, the orthodox Jew may avoid eating pork to maintain identity with his group, because no new more satisfying behavior is introduced, to avoid ostracism by his immediate Jewish associates, or to conform to religious dictates.

If changes are not made, then the group cannot increase in effectiveness. Summarizing the results of a study of the effects of discussion upon the correctness of group decisions, Thorndike (*1034*) concluded that, "In part we may feel that the small size of the gain in correctness of answers after discussion was due to the impossibility of breaking through (established) majority influence" (p. 354).

THE LAW OF EFFECT. The assumption that members of groups will

shift toward more rewarding behavior is based on what we know about the modification of the behavior of individuals. According to a great deal of experimentation in the field of individual learning, persons shift to a new form of behavior, the less rewarding the old behavior or the less adequately the old behavior coped with their problems. After a thorough review of the field, McGeogh (*693*) summarized the empirical law partly as follows: "Acts followed by a state of affairs which the individual does not avoid, and which he often tries to preserve or attain, are selected and fixated, while acts followed by states of affairs which the individual avoids or attempts to change are eliminated . . . Acts (resulting in) satisfying . . . a motivating condition are selected and strengthened, while those leading to consequences which do not satisfy a motivating condition are eliminated" (p. 574).

To illustrate, Thorndike (*1032*) showed that students modified their drawing of lines systematically only when given information after each drawing that some lines within certain lengths were "right," others "wrong." (Being "right" is usually rewarding to a human problem-solver; being "wrong" is not.) Many other experiments can be cited demonstrating the empirical law. In classic learning experiments, rats learn to negotiate a maze correctly by reinforcements of food, water, or other incentives for reaching the goal box. Pigeons learn to depress buttons to obtain similar rewards. No doubt the phenomenon involved has been almost universally employed by teachers and trainers since prehistoric times. The dog trainer uses a pat on the head to reinforce correct response to commands; the school teacher reinforces correct spelling by informing a pupil that every one of ten words has been spelled correctly; a father praises his son for hitting a ball properly.

But the effects of negative consequences have not been so well understood prior to experimental examination. Most studies support the conclusion that shock, punishment, or other noxious effects are less certain to reinforce behavior. If an individual is given four alternatives to action, *A, B, C,* or *D,* from which one must be chosen, and if he is punished for choosing *A,* he still has not learned much about *B, C,* or *D.* Current opinion by investigators seems to be that punishment (particularly if mild or of short duration) temporarily depresses response strength but does not eliminate the response tendency (Keller and Schoenfeld [*599*]). Negative consequences are likely to promote more variability in behavior (Muenzinger and Dove [*768*]). Their main

function may be to move the individual to make some other response leading more quickly to the discovery of the correct or rewarded behavior. If punished for *A*, on subsequent trials, the individual will choose *B*, *C*, or *D* rather than *A*, increasing the probability of finding the right answer. Yet continued severe punishment for individuals unable to find the correct solution may result in compulsive fixation of some wrong alternative, highly resistant to elimination (Maier, Glaser, and Klee [*705*]).

Numerous facts about the effects of reinforcement can be accepted here without taking a theoretical position accounting for these observations. For example, differentiation among the consequences of several choices promotes learning of the correct choice. Thus, Wischner (*1131*) contrasted rats learning to choose the lighter of two alleys. Learning was fastest for rats shocked for choosing the darker alley and given food for entering the lighter alley. Learning was slower for rats merely given food for entering the lighter alley. Learning was slowest for rats shocked and given food for entering the lighter alley.

Similarly, correct choice from among alternatives can be retarded by making discrimination more difficult between the correct and incorrect behaviors, as such. For example, Denny (*267*) found that T-maze learning by rats was less accurate when the rewarded and unrewarded end-boxes were alike rather than different in flooring and color.

KNOWLEDGE OF RESULTS AS REINFORCEMENT. With human learners, knowledge of results has been commonly effective in reinforcing new or correct behavior and eliminating old or incorrect behavior. For example, Trowbridge and Cason (*1059*) found that the more precise the "feedback" to subjects, the more rapidly they learned.

The significance of knowledge of results as reinforcement for individuals in discussion groups was noted by Jenkins (*575*), who commented, "If it is to be an effective producing unit, a discussion group must give attention to its mechanisms of operation. Awareness of its direction and goal, its rate of progress, present location on its path to the goal, use of members' potential ability and its ability to improve itself are important factors which lead to increased efficiency" (p. 60). Without knowledge of results, members of a group may become aggressive toward each other or escape the situation through apathy and boredom. Jenkins suggested the use of a "productivity observer" to feed back information into the group concerning rate of progress,

motivation, participation, leadership, and other factors of importance to the group. After feedback a group self-evaluation session was recommended.

Numerous studies support Jenkins' (*575*) comments. Kelman (*604*) varied feedback in the autokinetic situation to study its effects on the extent subjects changed their judgments in the presence of a confederate (who judged differently). Subjects given no feedback showed more variability of response in the presence of the confederate. Subjects given feedback indicative of success had changed less and were less influenced to change by confederates than the control group, while subjects who were given feedback indicative of failure showed change toward the confederate's judgments.

Leavitt and Mueller (*644*) concluded from results of an experiment that "free feedback" was an aid to accuracy in interpersonal communication, and that the presence or absence of feedback affected the sender-receiver relationship. In communications among members, "zero feedback" was accompanied by low confidence and hostility; "free feedback" was accompanied by high confidence and amity.

Reporting the effects of four conditions of feedback upon defensive behavior, Gibb, Smith, and Roberts (*405*) suggested that complimentary feedback produced significantly less defensive feeling within the group than negative feedback. Knowledge of members' feelings reported to the group produced significantly less defensive feeling than did feedback of task results. Significantly higher task efficiency occurred under positive feedback and also under feedback of feelings compared to task feedback. Similarly, in a related study, Lott, Schopler, and Gibb (*681*) suggested the importance of feedback of feelings as opposed to task-oriented feedback, in reducing defensive feelings and increasing task efficiency in small problem-solving groups.

French (*730*) reported an interaction between effects of knowledge of results and motivation on task performances. Her results showed achievement-motivated subjects achieve higher performance scores under task-relevant feedback, while, on the other hand, affiliation-motivated subjects perform better under "feeling" feedback. Berkowitz and Levy (*122*) also discovered a relationship between knowledge of results and task motivation. They found that work groups which have high "pride in group performance" are highly productive. In turn, this pride in the groups, associated with high group task motivation, was

believed to result from members' perception that the group as a whole performed effectively. Manipulating feedback, the investigators found that favorable knowledge of results given to the group as a whole produced high task motivation.

Pryer and Bass (*840*) gave knowledge of results to 13 groups following attempts to solve ten independent problems in succession. Thirteen other groups received no feedback of success or failure. Groups with feedback reached more accurate group decisions concerning each problem, although they began each new problem without any initially greater accuracy. In addition to learning how to make more effective use of the group's resources to solve new problems, those given feedback seemed more interested in solving new problems, while the groups without such knowledge of results tended to become bored.

ACTION OR INTERACTION?

Actions or interactions are the bearers of effects. For reinforcement of some ways of behaving and elimination of others to occur, members must act alone or interact with each other. Without this action or interaction, no effects will occur; without effects, no changes in behavior will take place.

On the basis of a wide variety of reports and observations, it is postulated that after infancy, among humans in groups faced with problems, interaction is most frequent as the bearer of reinforcement compared to isolated individual problem-solving activity. Members of groups change more because of interaction and its effects than because of isolated activity and its effects. This postulate is supported by Thelen (*1023*): ". . . individual actions are seldom actions of single individuals, they are rather interactions or coactions of two or more people. Most acts of problem-solving in social spheres [groups and collections?] are acts of communication . . . what *A* says depends on how *B* listens; *A* gets continual feedback of cues from *B*, and *A* modifies his message as he interprets *B*'s cues . . ." (p. 185).

Four experimentally determined facts serve to buttress the verity of the postulate:

1. Persons in a collection who interact change their behavior sooner than if they do not interact.
2. Persons in collection who interact change behavior more than if they do not interact.

3. Interaction brings reinforcements not possible in isolation.
4. If only isolated individual activity takes place in the absence of external reinforcement, the tendency to change behavior will be reduced instead of increased.

The argument is that if we observe changes occurring in a group, they are more likely due to the effects resulting from interaction rather than from the effects of isolated activity, since interaction produces more effects sooner and some effects not possible with isolated activity. Moreover, isolated activity may produce less rather than more change.

CHANGES DUE TO INTERACTION OCCUR FASTER. Changes in behavior occur faster when individuals interact than when these same individuals are isolated from each other. Allport (*12*) found that the presence of others increased the speed of free associations. Mayer (*730*) found that working in the presence of others facilitated the performance of school children. Weston and English (*1103*) and Sengupta and Sinha (*930*) obtained similar results. Both Gates (*387*) and Dashiell (*253*) found that because interaction is stimulated, the presence of others may interfere with the accuracy of individual test performance. In this case, the problem situation arbitrarily calls for isolated activity; the presence of others stimulates the tendency to interact. The resulting conflict results in reduced accuracy. A similar effect was described by Horsfall and Arensburg (*542*) who observed that shoe factory groups that did the most talking did not get the most done. Talking, no doubt, interfered with productivity rather than facilitated it.

MORE CHANGE OCCURS IN INTERACTION. Numerous studies support the fact that more change in behavior will occur for interacting individuals than for these same or similar individuals in isolation. Jenness (*578*) had individuals guess the number of beans in a bottle, then discuss the matter in groups of three, four, or other sizes. Compared with individuals not permitted discussion but only given the estimates of others, those who discussed the judgment changed their opinions more. Clark (*222*) noted that groups were more subject to suggestion than isolated individuals. Of 168 in a group, 33 "sensed" odor in an odorless bottle of water, while only 1 in 9 isolated subjects were so influenced. While Burtt (*178*) failed to find increased accuracy of decisions following discussion as reported earlier by Munsterberg (*772*), he, like Munsterberg, noted that discussion promoted change in judgment. Radke and Klisurich (*844*) found that mothers of new-born

infants who engaged in formal discussion among themselves under the leadership of a dietician, eventually reaching group decisions coinciding with the usual recommended procedures, adopted the desired behavioral patterns much more effectively than a control group receiving individual instruction and printed schedules.

Anderson (*21*) described the presumed forestalling by discussion of a strike among union members of a Detroit factory by a meeting of management with union committeemen, during which the offended members were allowed to discuss their grievances openly. Faced with resistance to changing methods by pajama factory workers, Coch and French (*229*) compared a control group of operators, taught the usual way, with two experimental groups of workers. The new method was accepted more readily in both experimental situations where the workers themselves, or worker representatives, were permitted to discuss the changes in method. Similarly, Levine and Butler (*654*) reduced the halo in merit ratings assigned by foremen significantly more than in control groups by permitting them to discuss more realistic evaluations.

INTERACTION BRINGS REINFORCEMENTS NOT POSSIBLE IN ISOLATION. Interaction rather than isolated activity will occur when persons come together as a group, we suggest, because interaction is more likely to reinforce behavior than isolated activity. Much of this argument has been discussed in Chapters 3 and 4 concerning why individuals are attracted to groups rather than content to remain alone. For example, what kinds of opportunities are possible in group therapy that are not as likely in individual therapy? According to a survey by Corsini and Rosenberg (*238*) of 300 articles on group therapy, the opportunities (which can be attributed primarily to interaction in groups) include discovering that others have the same problems, developing respect and consideration for others, and testing oneself socially.

The verbalization usually involved in interaction but not possible in isolation also brings reinforcement not found in isolated activity. Janis and King (*572*) noted that overt verbalizing induced by role playing brings about more change in subjects than when subjects are passive listeners to suggestion. Active role players required to advocate a given position on movie theaters, meat supplies and cold cures changed their opinions more than passive listeners, particularly where the players improvised a lot and were satisfied with their performance. Players changed more because their opportunity to interact brought to bear

powerful secondary reinforcers of change: players were impressed by their own arguments and gained satisfaction from their actions not possible if they had merely listened to arguments of others.

Similarly, Lazarsfeld, Berelson, and Gaudet (*640*) and Katz and Lazarsfeld (*596*) observed that personal interaction is likely to produce more change in opinion than mass media impinging on isolated individuals. Personal contact is more flexible, more disarming (not seen as propaganda) and offers immediate reinforcement for acceptance of suggestions not possible in influence attempted by mass media on isolated persons.

Much of the change attributable to interaction may be only indirectly due to interaction. For example, McKeachie (*700*) contrasted three conditions: group discussions followed by decisions, lectures followed by the announcement of the results of a secret ballot, and lectures with votes not announced. But the effects of discussion in the absence of decision were not examined. Results indicated that members shifted opinion in the direction they perceived the group as a whole was changing.

Discussion provides knowledge of majority opinion of group decision. Change will be less in the absence of decision. Indeed, Bennett (*112*) suggested that knowledge of the group's opinions is critical in overcoming resistance. As will be discussed in a later chapter, a good deal of change in members is a result of group control—the group's ability to reward conformity and punish noncompliance.

To examine the respective roles of interaction and decision, 20 groups of five subjects per group were randomly divided into four treatment categories. Using the objective procedures for assessing group behavior described in Chapter 6, each subject twice ranked privately ten sets of five cities in the order of population size. Treatment differences were due to differences in activity intervening between the first and second ranking.

Five groups discussed each problem for three minutes, reaching a group decision announced by one of the members. Five groups discussed the problem but announced no group decision. Five groups engaged in a "fill-in" task for two minutes and voted secretly on the true ranks of the cities, after which the votes were counted and the group decision announced. Five groups simply continued the irrelevant intervening task for the full three minutes and reranked the cities.

Among the measures examined were (1) coalescence, or the increase in agreement among members of a group; and (2) stability, or the extent each member did not change his opinion.

The results indicated that (1) coalescence was increased by group discussion, group decision, and most of all by the combination of both treatments; and (2) change of opinion was significantly greater for groups permitted either discussion or decision, although the effect was much less pronounced with group decision alone. Again, greatest change occurred when both were permitted (Pennington, Haravey, and Bass [*814*]).

ISOLATED ACTIVITY, AS SUCH, REDUCES THE LIKELIHOOD OF CHANGE. Several experiments illustrate that subjects will gradually agree more with themselves, varying less in repeating the same judgments or actions, if no particular consequences follow from their isolated behavior. In Thorndike's (*1032*) study of the effects of lack of knowledge of results on line-drawing, subjects given no feedback gradually drew lines varying less in length from one to the next. Tresselt and Volkmann (*1055*) showed that subjects' judging of sets of weights will decrease in variability as they continue to make judgments. In the absence of interaction with others or differential reinforcement, they will tend to "fix" their scales. Both Sherif (*948*) and Walter (*1083*) noted that a personal mean is evolved with reduced variability of response about the mean among subjects continuing to make autokinetic judgments.

Under certain conditions, isolation may produce severe changes in individuals as a mode of adjustment to their rigidly restricted environment. Persons in solitary confinement are liable to develop hallucinations, delusions, or other withdrawal symptoms as a defense against their stressful environment. But, given normal living conditions for an individual, he is less likely to modify his reactions to them if he remains alone than if a member of a group.

LEADERSHIP AND GROUP EFFECTIVENESS

In Chapter 6, leadership was defined as an interaction where one member of a group reached his goal of changing other members' behavior. If the others changed, the leadership attempt was successful; if the group reached its goals, was rewarded or reinforced as a conse-

quence, the group increased in effectiveness, and the leadership was effective.

To become more effective, to obtain goals, members must change their less rewarding ways of acting. But since according to the postulate of interaction and change, much or most of this change occurs as a consequence of interaction, it follows that interaction must occur in order for groups to become more effective. This will be considered in detail in Chapter 18. By definition, an interaction where one member actually changes another is successful leadership. Successful leadership must occur usually in order for groups to become more effective. Such leadership can be described as effective leadership. In addition, such interactions must be initiated or attempted. Attempted leadership is prerequisite for much of the change and increase in effectiveness likely in a group.

These theorems have been formulated by others in several ways, usually as definitions. Homans (*537*) suggested that the leader will display his leadership and will initiate action especially during emergencies in the effective group. French (*372*) proposed that leadership be measured in terms of changes in group effectiveness. Ewer (*302*) commented that leadership is indispensable for group progress. Others supporting the defining of leadership in terms of group effectiveness include Stogdill (*989*) and Morris and Seeman (*765*).

EXPERIMENTAL EVIDENCE. Bass, Klubeck, and Wurster (*87*) found a correlation of .48 between the total amount of successful leadership displayed by all members in 67 leaderless group discussions and their final group effectiveness ratings. Torrance (*1047*) has observed a significantly positive relationship between good supervision found among air crews during situational tests, and the later effectiveness of the crews in combat. Again, Campbell (*185*) reported that various measures of the effectiveness of the submarine crews were found correlated with leadership ratings of the commander by subordinates and supervisors. In the same way, Knoell, French, and Stice (*622*) obtained a correlation of .83 between the effectiveness rating of the air crew commanders of B-29's in combat and the effectiveness of the crews. Crew effectiveness included successful completion of missions, rated dependability in emergencies, and rated value to the Air Force, according to a factor analysis.

INITIAL EFFECTIVENESS AND LEADERSHIP

We have assumed that increasing effectiveness from some initial state requires a corresponding amount of change in the behavior of members, hence a corresponding amount of leadership. Therefore, it follows that if a group is now at some low point in effectiveness, if it faces a difficult problem, or many obstacles block the path to its goals, a great deal of leadership must occur before maximum need satisfaction or maximum effectiveness is attained by the group. On the other hand, if the group is now quite effective, members are highly satisfied, few or easy problems face the group, then relatively little leadership must or can occur before maximum effectiveness is attained. *The further a group is from maximum effectiveness, the more leadership is possible and required; the closer to maximum effectiveness, the less leadership is necessary.* Ineffectiveness may be described in terms of the complexity of problems, or it may be viewed in terms of the immaturity or lack of ability, training, or experience of the members. The relation is complicated by the fact that if effectiveness is too low initially, members may quit the group rather than change their behavior to solve the group's problems. This complication will be considered further later. Still another aspect is the emergence of maladjustive responses to the frustration and conflict aroused by the difficulties. If orderly problem solution is not possible, the members may directly aggress against the obstacles or against each other or exhibit other maladjustive behavior.

While the relation between attempted and successful leadership will be discussed in more detail later, for the present let us note that if the group is in a state of ineffectiveness, some member or members will attempt to change each other. Some will be successful. Attempted as well as successful leadership will be higher when members cannot immediately attain their goals, due either to their own lack of ability or to the complexity of the obstacles.

Industrial management appears to recognize that different work situations require different amounts of supervision per worker. According to a survey of 940 work groups in 98 American companies by Guion (*446*), while the average number of workers per first-line supervisor was 29, 4 fewer employees were supervised when the work was done in gangs. More supervision was also deemed necessary when workers are

compressed into a small amount of work space and more skill is demanded of employees.

RELATED THEORY: INEFFECTIVENESS AND CHANGE. Numerous theorists and reviewers have commented on this relationship. A problem-solving model of communication in a B-29 air crew formulated by Roby and Forgays (*875*) stated that the greater the discrepancy between the situational demands to solve crew problems and present behavior, the more energy expenditure would be necessary to eliminate the discrepancy. Titus (*1043*) and Selznick (*928*) suggested that the more difficult or complex the tasks required of the group, the more must members differentiate their labors. Kimball (*614*) observed that rural organizational behavior remains stable as long as it represents a satisfactory adjustment to a relatively stable task-use of the land. Technological advances introduce problems requiring farmers to change to new patterns of coöperation.

RELATED THEORY: INEFFECTIVENESS AND LEADERSHIP. Summarizing the experimental literature up to 1940 on the effects of guiding individual learners, McGeogh (*693*) noted that small numbers of guided trials early in practice are most effective in facilitating change in behavior. Large continued amounts of guidance may actually hinder learning. Similarly Barker, Wright, and Gonick (*54*) suggested that the less able or the less familiar with a situation is a person, the more he will oscillate in his behavior and the easier he is to influence. There will be little resistance to suggestion where the situation is unfamiliar or ambiguous. Analogously, Baxter and Cassidy (*102*) proposed that the more immature a group is, the more guidance it must obtain to reach its maximum effectiveness. Lippitt (*560*) has suggested that influence behavior by a member will be greater the more the discrepancy between present conditions and what he believes to be true or desirable. Frank (*360*) argued that the need for political leadership arises when the present order is defective. Again, Hemphill (*496*) deduced that an individual will attempt to lead, if he perceives that he can increase the ability of the group to satisfy its social needs and if he is dissatisfied by the present state of affairs. Similarly, Gibb (*399*) pointed out that leadership activity increases when groups are faced with problems. Attempted leadership is more likely to succeed when the group is in a state of ineffectiveness, unpolarized, without clear direction. On the other hand, when the group is highly polarized,

attempts to lead will have little effect. Likewise, Schultze (*916*) commented that more opportunities exist for creative leadership in the newer countries with less tradition and set ways of solving problems, than in older, more stable lands.

EXPERIMENTAL EVIDENCE: PROBLEM DIFFICULTY AND LEADERSHIP, INTERACTION, AND CHANGE. Observing 888 spontaneous preschool groups, Chevaleva-Ianovskaia (*216*) concluded that if the groups had no special problems, no leadership developed. But, if problems arose, two or three leaders would appear.

Another bit of experimental evidence is given by Haythorn (*485*), who noted that only a certain total amount of leadership can occur when a group is faced with a problem. When one member exhibits much aggressiveness, self-confidence, and initiative, other members show less of this behavior. Similarly, Heinicke and Bales (*490*) found that once a stable esteem hierarchy was established in initially leaderless groups, those of high esteem no longer initiated the overt interactions as they would have earlier.

Most to the point, 45 air crews of ten members each discussed work problems. Ziller (*1150*) reported a correlation of .59 between lack of interaction or participation and perception of the problems as easy. Again, while Bass, Pryer, *et al.* (*90*) failed to find an increase in attempted leadership as problems were systematically made more difficult for 51 ROTC groups of five members each, a significant increase in actual successful leadership was observed (Bass and Flint [*80*]). According to Crockett (*249*), leadership emerged from among business and government conference participants primarily when a problem was created by the failure of the designated chairmen to lead the conference.

EXPERIMENTAL EVIDENCE: THE GROUP'S ABILITY AND SUSCEPTIBILITY TO CHANGE AND LEADERSHIP. Another way of looking at the same phenomenon as the difficulty-leadership relationship is to examine the relation between the ability, training, and experience of the group and the amount of leadership, interaction, and change likely. Thus, Wegrocki (*1094*) found that more intelligent children are less influenced to change by propaganda. Similarly, combat crew training critiques were found by Irvin (*561*) to grow shorter as training progressed. Also, as crews became more able to handle the situation, the student-subordinates participated more (changing from 8 percent to 43 percent of total

critique time) and the instructor-leader less during the critique. The critique became less and less desired by the students as they became better trained. Similarly, Heinicke (*489*) reported a reduction in the amount of leadership attempted as groups continued to meet.

Again, Mausner (*729*) told some subjects on 82 percent of the trials that their judgments were wrong; partners of these subjects were informed 82 percent of the time that they were right. The negatively reinforced subjects—brought to a highly ineffective state of affairs—were more likely to change subsequently toward the judgments of the positively reinforced partners and positively reinforced subjects were less likely to be influenced by negatively reinforced partners. Kelman (*604*) also found "successful" subjects to be less suggestible on the autokinetic judgment problem than subjects told they were failures.

Following a survey of leadership and productivity in an insurance firm, Katz, Maccoby, and Morse (*595*) concluded that leaders of productive departments supervised less closely than supervisors of departments lower in productivity. While the usual inference is that close supervision reduces productivity, part of the relationship observed may have been due to unproductive departments requiring more close supervision to get the job done.

TOO GREAT INITIAL INEFFECTIVENESS. An earlier theorem must be considered, that concerning the effects of effectiveness on attractiveness (Chapter 4) before a more comprehensive prediction can be made. If the group is extremely dissatisfying initially, if its problems appear overwhelming, its obstacles insurmountable, the group may be so unattractive that members withdraw from it or its problems rather than attempt to solve them. Therefore, we deduce the curvilinear relation shown in Figure 4. Maximum successful and effective leadership occurs where the problems faced by the group are not so difficult that members withdraw from them, nor so easy that little change in behavior is necessary to solve them. A multiplicative function appears best to describe the situation. At minimum attraction, no matter how much change is possible, little or no successful leadership can occur. When no change is possible, no matter how attractive the group, again zero leadership will occur.

French (*370*) assumed such a curvilinear relationship when he declared that one member, *A*, would attempt to influence another, *B*, the more discrepant the opinion of *B* from *A up to a certain point*. If *B*

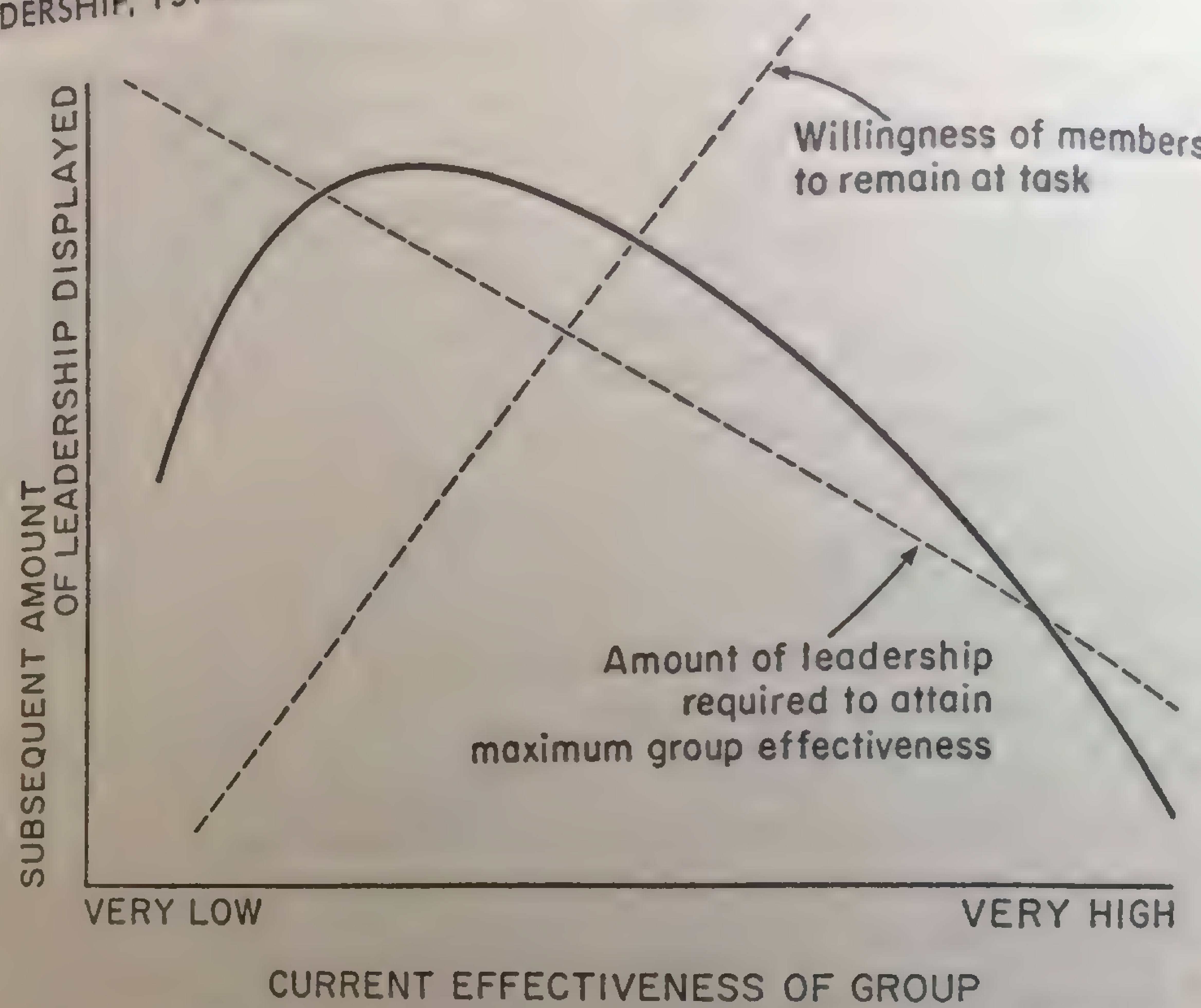


FIGURE 4. Deduced Relations Between Current Group Effectiveness and Subsequent Amount of Successful Leadership Displayed.

continued to reject *A, A* would cease. On the basis of conferences among a total of 700 persons, Guetzkow and Gyr (*444*) suggested that groups tend to postpone (withdraw from) complex problems. They tackle only simple items in the agenda, if possible. If problems too complex for the members appear, participants will withdraw, exhibiting little interest in the problem and refraining from continued interpersonal contact. Toynbee (*1052*) offers historical examples to support the principle that the problems faced by a group may be too complex or too easy. In Toynbee's terms, societies may be faced with problems too severe or not severe enough to evoke maximum response and growth (change in relations among members) in the society. Societies may be faced with geographical conditions too severe (Greenland) or not severe enough (Norway) as the optimum (Iceland) for promoting maximum development. Life was too hard in Maine, too easy in Virginia, but of optimum challenge in Massachusetts. The breaking of new ground by overseas migration may require too great effort (Ap-

palachia) or too little (Galloway); crushing military defeats, if not too severe, may "set the house in order."

WHO LEADS WHOM?

We have considered some of the conditions giving rise to the emergence of leadership. Now, we will consider who leads whom.

INDIVIDUAL DIFFERENCES IN LEADERSHIP POTENTIAL

What are the sources of individual differences in leadership potential? Why does *A* lead *B* rather than vice versa? Why do some members attempt more leadership acts than others? Why are some more successful? Why are some more effective? We shall suggest a number of variables, including ability, power, and motivation, all contributing to the variance among participants in tendencies to emerge or be elected or appointed as leaders. These variables, in turn, will be the results of the members' history in the group, their history elsewhere, and stimulating conditions.

THE ARGUMENT

According to our earlier formulation, when members perceive the group to be ineffective, any or all may attempt leadership acts. But, since rewarded behavior is reinforced, while unrewarded behavior is not, those members whose leadership acts tend to result in increased group effectiveness, in increased rewards, more likely will have their acts successfully followed in the future. The leadership acts of certain members will tend to be rejected or ignored—to become aborted—the more their leadership acts are ineffective—do not bring reinforcement to the members. The proportion of successes compared to attempts to lead will increase among those whose previous leadership acts have been effective; the percentage of successful compared to attempted acts will decline for those whose previous acts bring less and less reinforcement to the group.

Who attempts to lead? He who has been successful earlier, for earlier success reinforces renewed attempts by the leader to exhibit the same behavior. Who will be successful as a leader? He who has been effective earlier, for earlier satisfaction to those who have followed the leader will reinforce their tendency to accept his continued attempts. Who will be effective, if he is successful? One member may reinforce

the behavior of other members in two ways. He may have the ability to solve the group's problems; he may know how the group can achieve its goals attaining its rewards. In addition to serving as such an indirect agent or cue of reinforcement, he may bring reinforcement himself by having the power to serve as a direct source (through his person or position) of approval, consideration, reward or reproof, and punishment. Chapter 9 will deal with the relation of leadership potential to a member's ability to solve the group's problems. The power of a member to directly reinforce behavior of other members will form the subject of Chapter 12.

ATTEMPTED LEADERSHIP A FUNCTION OF EARLIER SUCCESSFUL LEADERSHIP

To return to the main argument, we will now consider the deduction that a member will attempt to influence others if he has been successful earlier in similar attempts. Conversely, he will reduce his attempts to lead if he has failed earlier. Other factors will also affect attempts to lead, such as the motivation, power, and personality of the would-be leader and the nature of the tasks, but these will be considered later.

RELATED THEORY AND COMMENTARY. Hemphill *et al.* (*502*) deduced that a member will attempt leadership as a function of his expectation that his act will be successful. Thelen (*1023*) suggested that a member will participate in groups if the group gratifies his individual needs. He will attempt to influence others if it is rewarding and leads to group task accomplishment. Successful leadership, per se, is rewarding (Pigors [*826*]). On the other hand, Homans (*537*) hypothesized that we avoid attempting leadership if we are likely to be rejected.

EXPERIMENTAL EVIDENCE. Lippitt, Polansky, and Rosen (*675*) found that boys in summer camp regarded as likely to influence others successfully were observed to make more such attempts to influence. Similarly, Zeleny (*1147*) found that discussion leaders were judged by associates as more self-confident. The most objective demonstration was provided by a study of 24 groups of four men by Hemphill, Pepinsky, *et al.* (*501*). Attempted leadership based on observers' ratings of laboratory performance was greater among those subjects who, because of experimental manipulation, had more reason to expect they would succeed.

SUCCESSFUL LEADERSHIP A FUNCTION OF EARLIER EFFECTIVENESS AS A LEADER

A member will successfully influence others if his earlier attempts to do so have been effective as well as successful. Conversely, he will fail to influence others if his earlier attempts were successful but ineffective. This same deduction was stated somewhat differently by Krech and Crutchfield (*628*). "If . . . an individual in the group is perceived by the group as a means to the goal or the escape from danger . . . he is then likely to emerge in a leadership status" (p. 435). Similarly, Pellegrin (*812*) inferred that a person will attain a position as leader who is able to lead the group toward successful termination of its activities. Members follow a particular leader because doing so appears to offer the possibility of goal attainment, of effectiveness. And Hemphill (*496*) noted that a leadership act is more likely to be successful the more its consequences are perceived as likely to increase group satisfaction. Therefore, who is likely to be successful depends on what needs of the group he can serve to satisfy as well as whether the group has such needs. If the goal of the group is conviviality, the funster is most likely to be successful. If the goal is to solve problems, the initiator of good solutions is likely to be followed (Murphy [*773*]). Similarly, Faris (*304*) argued that no one can successfully lead who does not contribute to the morale of the group (satisfaction of members) or does not give some assurance of eventual satisfaction.

It must be pointed out, however, that it is not as important for the potential leader to have been effective earlier as it is for him to be perceived to have been effective. Often the demagogue by simplification of issues and replication, with promises of stability, peace, and prosperity, can exhibit successful leadership despite his earlier actual ineffectiveness (Neumann [*782*]). He is elevated to a position where he can be successful when he is perceived to satisfy a need. Then his job is to create the belief that he has actually done so (Hook [*539*]).

EXPERIMENTAL EVIDENCE. On the basis of choice of leaders among 1800 college women students, Moore (*760*) concluded that successful leaders have behavior patterns fitting the needs of their group. Most to the point here was a previously cited experiment by Mausner (*729*). Subjects asked to judge the length of lines were more readily influenced by partners who earlier had been informed of their accuracy in judg-

ment. Subjects paired with partners whose judgments earlier were less adequate were less likely to be influenced by their partners.

ATTEMPTED LEADERSHIP A FUNCTION OF EARLIER EFFECTIVENESS

If attempted leadership is a function of earlier success, and earlier success is a function of still earlier effectiveness, it follows that attempted leadership is a function of earlier effectiveness. A member will attempt leadership if he earlier was effective in the same situation; a member will cease such attempts, if he was ineffective earlier.

RELATED THEORY AND COMMENTARY. Sherif and Sherif (*950*) commented that taking the initiative and showing responsibility tend to polarize around certain individuals who are perceived to have contributed more than others to task success. Similarly, Hemphill and Pepinsky (*500*) and Hemphill (*496*) suggested that a member's attempted leadership will increase if he expects his attempts will result in solution of the problems facing the group.

EXPERIMENTAL EVIDENCE. An early Russian experiment on imitation in monkeys has relevance. Four monkeys learned to uncover a box of food. The most aggressive of the four was trained to locate the food differently from the others. For example, while he learned that a red light was the cue leading to food, the others learned that a blue light was reinforcing. There was a marked decline in the successful leadership behavior of the formerly most aggressive monkey when all were placed in a situation with conflicting cues. This most aggressive monkey was no longer a source of effectiveness to the other three in uncovering the box of food. Gradually, he exhibited less success and attempted less to influence the others (Aaronovich and Khotin [*1*]).

In a study of 16 groups of four, Hemphill, Pepinsky, *et al.* (*502*) found that when a subject's relevant knowledge did not help but rather hindered the group (as occurred in a reasoning task) the subject was less likely to attempt leadership on subsequent tasks. On the other hand, when subjects had relevant information on the first trial useful to the group and leading to task success, they were more likely to attempt leadership on subsequent trials. In a subsequent analysis, the authors found that attempted leadership was greater among members who received rewards with task success.

LEADERSHIP MUST BE SUCCESSFUL TO BE EFFECTIVE

By definition, the appearance of effective leadership implies the occurrence of as much or more successful leadership. An "also ran" who fails to win election as United States President cannot exhibit successful leadership, leadership that in turn may or may not be effective during the next four years, to the extent possible by the winner of the election. Jones (*582*) noted that the effectiveness of a leader not only depended on the extent he met a real need of the group but also on whether he was able to induce others to accept his attempts to lead.

LEADERSHIP MUST BE ATTEMPTED TO BE SUCCESSFUL

Again, it is a matter of definition that before you can influence someone else, you must attempt to do so. As a corollary, Smith (*962*) noted the importance of opportunity. He who succeeds as leader may be but one of several who might have been just as successful had he not been present to attempt leadership first.

EXPERIMENTAL EVIDENCE. A good deal of evidence from a variety of sources supports the proposition that a positive correlation exists between the amount of attempted leadership displayed by members and their success as leaders. It should be remembered that we define attempted leadership as any participation or interaction in groups aimed at changing the behavior of others. In initially leaderless groups, participation, per se, is regarded as a measure of attempted leadership. As noted in the preceding chapter, time spent talking in such discussions has been found correlated between .65 and .96 with rated success as a leader by a number of investigators (Bass [*64*]). When the measures of successful leadership were completely objective, using methods described in the preceding chapter in a subsequent study of 19 groups, correlations of .16 and .19 were found between attempted and successful leadership (Bass [*69*]) although attempted leadership perceived by the members correlated .82 with their ratings of who successfully led the discussion. Perceived attempted leadership correlated .28 and .32 with objective success as a leader. Perceived success correlated .50 with objectively assessed attempted leadership. In a subsequent study of 255 subjects, significant correlations of .17, .15, and .28 were found between attempted leadership and three measures of successful leadership (Bass and Flint [*80*]).

Conference leadership success likewise has been found strongly

related to participation (Conference Research [*234*]). Similarly, Miller (*751*) found that of 250 high school principals, those spending more time in supervision and less in research and pupil affairs were rated as more adequate leaders. Studies of naval leadership revealed a correlation of .53 between nominations as a success as leader and the number of times an executive was mentioned as one with whom other members spent the most time getting work done (Shartle, Stogdill, and Campbell [*936*]). Smith and Nystrom (*965*) contrasted high school leaders and nonleaders finding student leaders devoting more time to extracurricular and leadership activities. City political bosses were found by Salter (*898*) to be joiners, highly active in community groups. Similarly, Olmsted (*795*) concluded that the greater a person's participation in community activities, the more likely he is to be regarded as a community leader. Katz and Lazarsfeld (*596*) noted that women most likely to influence personally the buying practices of others were gregarious "joiners" with many friends. Again, in laboratory analyses of communication nets, Shaw and Gilchrist (*942*) found a positive relation between tendency to initiate letters to others and subsequent rank as a leader.

Tryon (*1060*) reported correlations of .41, .31, .15, and .44 between talkativeness and leadership among adolescents. Goodenough (*420*) and Chevaleva-Ianovskaia (*216*) found similar results in children. In his review of the literature, Stogdill (*988*) uncovered 20 studies finding that leaders participate in more group activities, surpassing nonleaders in number, extent, and variety of activities in which they participate. In this same review, Stogdill mentioned six studies indicating that leaders are more active when playing games with nonleaders. He also noted nine reports suggesting that leaders are more lively, active, or restless. Agreeing with Pellegrin (*812*), Stogdill concluded that leadership emerges through active participation and demonstration of capacity to carry coöperative tasks through to completion.

LEADERSHIP AND GROUP EXPERIENCE

The preceding definitions, assumptions, and theorems about attempted successful and effective leadership yield two further deductions concerning leadership and group experience. The first is that the correlation increases between attempted, successful, and effective leadership with increased group experience.

Early in a group's life, there is little experience concerning who is most likely to be effective if he succeeds and concerning who is most likely to be successful if he attempts to lead. As the group gains experience, unsuccessful earlier-ineffective members will cease attempting leadership; effective, and hence later successful, members will increase their attempts.

Carter, Haythorn, *et al.* (*198*) commented on the struggle that arises in initially leaderless discussions. Most everyone attempts leadership, much of which is rejected by others. Later, as experience is gained, members settle down to some pattern of leader-follower relations less productive of continuing conflict.

The second deduction is that a group ineffective earlier in its history subsequently changes its leadership, although a group effective earlier in its development does not.

The earlier theorems suggest that under conditions of free choice, members will continue to follow those whose earlier success as leaders have resulted in group effectiveness. They will reject the continued attempts of these earlier-successful leaders if following these leaders has produced ineffectiveness. Parliamentary democracies emphasize this principle in their structure. When the legislature to whom the leadership is responsible no longer has confidence that continuing to follow the leadership will be satisfying to the majority, the leadership is changed. The leaders remain in office if they are supported by the vote of confidence.

A specific test of this proposition for 17 groups by Pryer, Bass, and Flint (*841*) found that groups became or remained effective as long as they did not change leaders. In groups gaining in effectiveness, consistencies of .70 and .33 among those who exhibited successful leadership were obtained. Among groups losing effectiveness, consistency of leadership dropped to — .08 and .01. It is suggested that these results do not invalidate our argument but indicate that other factors, such as the struggle for esteem and its effects, must be considered. These factors will be examined in Chapter 16.

CHAPTER 8

MOTIVATION TO ATTEMPT LEADERSHIP

The tyrant . . . is always stirring up some war or other, in order that the people may require a leader.
—PLATO, The Republic (ca. *390* B.C.)

Plato's generalization involves two propositions, one considered in Chapter 7, the other to be covered in this chapter. First, more leadership will be required if the group becomes ineffective (i.e., has problems of war facing it). Second, some persons are so self-oriented, so concerned about gaining power, esteem, and status by displaying leadership, that they will work at first to reduce the group's effectiveness or increase its existing problems. There are variations in the degree to which individuals are self-oriented rather than task-oriented or interaction-oriented. These consistent variations add to the observed differences among individual tendencies to attempt leadership. Further individual differences in personality and differing personal goals result in even more individual differences in attempted leadership. The effects of these personality differences will be considered first.

ENERGIZATION

Earlier, we related attempted leadership to participation in interaction. In or out of groups, some persons are more energetic or active than others. Placed in groups, these more energetic persons will partici-

pate more or attempt more leadership than less energized persons. All other things being equal, they will, since they attempt more leadership, be able to exhibit more success as leaders. Studies by Bellingrath (*110*), Brown (*166*), Cattell and Stice (*207*), Cox (*247*), Stray (*1003*), and Wetzel (*1104*) support this. For example, Napoleon was characterized by tremendous energy, a need to be active continually (Ludwig [*683*]). Local politicians, according to Salter (*898*), have an abundance of energy. Similarly, Rosen (*885*) found that boys whose case histories revealed overinhibition were least likely to exhibit successful leadership when placed in a new group.

NEED FOR ACHIEVEMENT

McClelland, Atkinson, *et al.* (*687A*) have conducted a series of researches on differences among individuals in concern over "success in competition with some standard of excellence." If placed in interaction with others, persons high in need for achievement will, we expect, be more likely to attempt to solve the group's problems apart from all other considerations motivating members to attempt leadership. Empirical verification comes from clinical analyses of successful business executives by projective techniques. The more successful of 473 executives exhibited high need for achievement and fear of failure on the Thematic Apperception Test (Gardner [*384*]). Again, 300 successful executives were described on the basis of the Rorschach Ink Blot test and the TAT as higher in need for achievement (American Management Association [*16A*]). Similarly, Hanawalt, Hamilton, and Morris (*471*) reported that leaders among college women were higher in level of aspiration.

Cox (*247*) noted in examining the biographies of great men that they were outstanding in their desire to excel in performance. Correlations between desire to excel and successful leadership of .47, .29, and .64 were obtained by Webb (*1092*), Drake (1944), and Bellingrath (*110*).

SELF-ESTEEM OR SELF-CONFIDENCE

Persons vary in the extent they value themselves. How this affects their tendency to attempt leadership will be discussed in detail in Chapter 15. Here we will merely note Stogdill's (*988*) conclusions

concerning 11 experimental studies on the matter: "leaders rate higher than their followers in self-confidence and self-esteem" (p. 53).

ATTRACTION TO THE GROUP

Members within the group will vary in their attraction to it, interest in it, concern with its goals, conviction in its aims. The more a member is attracted to the group, the more he gains from group success. Under a given amount of ineffectiveness, he will be under higher motivation to get others to coöperate with him in fostering the aims of the group, i.e., he will attempt more leadership. Again, the more he attempts leadership, the more likely is he to succeed.

Crockett (*249*) noted that the more-attracted members were more likely to emerge as leaders in business and government conference discussions. Similarly, "fashion leaders" among women were found by Katz and Lazarsfeld (*596*) to be younger unmarried women or wives with small families while "marketing leaders" more often were wives with large families. Interest determined areas in which personal attempts to influence opinion and success at doing so occurred. Again, conviction in the aims of the union were found highest among union leaders compared to the rank-and-file (Seidman, London, and Karsh [*924*]).

Grossack (*441*) observed that when members receive rewards as a group rather than individually, more attempts to influence each other occur. Similarly, Hemphill and Pepinsky (*500*) reported attempted leadership higher among members receiving greater rewards for task success and members who had more reason to expect they would succeed. Likewise, Gerard (*391*) corroborated earlier findings that the more members are attracted to a group, the more they will attempt to influence each other.

TASK, INTERACTION, AND SELF-ORIENTED MOTIVATION

Within a particular group, members differ in what aspect of the collection or its behavior attracts them to remain in the group. Some members will find most satisfaction if and when the group attains task success; other members will be satisfied mainly if the group affords opportunity to interact harmoniously with others; still others will primarily be attracted to the group if they expect to gain esteem, status,

and other direct rewards for themselves, regardless of the amount of interaction and task success of the group.

TASK ORIENTATION. While it is probable that members will differ from each other in each of these orientations, task, interaction, and self, in some complex correlated way depending on the group's goals and the composition of its membership, we shall discuss the issue as if three independent types of members existed. There is no isomorphic correspondence between particular personal motives and orientation. Orientation depends on the particular goals of a group in which a member with given motives is placed. The less a member's motives are consistent with the group's goals, the less task-oriented is the member and the more self-oriented. But we guess that certain personality needs generally are likely to bring about self-orientation; others are likely to promote task or interaction orientation. It is suggested that some individuals placed in a particular collection will tend to exhibit behavior indicative of task orientation. When placed in the group, they will try their hardest to help obtain the group's goals, solve its problems, overcome barriers preventing the successful completion of the group's tasks, and persist at their assignment until success is achieved. *Task effectiveness* (Chapter 3) is most reinforcing to them.

Leadership acts must usually be effective and not merely successful to satisfy the task-oriented leader. Cincinnatus, giving up his plow to become general, and then returning to it following victory, represents the ideal type of task-oriented leader.

INTERACTION ORIENTATION. Interaction-oriented members are concerned with the group as a means for forming friendships, sharing things with others, providing the security of "belonging," and helping foster strong interpersonal relationships. Whether the group attains the external goals is irrelevant to the interaction-oriented member's satisfaction with the group. *Interaction effectiveness* is most reinforcing or rewarding to the interaction-oriented member. A member may be interaction-oriented because he sees himself as less able to handle the tasks of the group, as such. While the more proficient, attractive agents of a law enforcement agency studied by Blau (*136*) were task-oriented, the less proficient agents engaged in extensive informal relations.

SELF-ORIENTATION. For the self-oriented member, the group is merely the theater in which certain generalized needs can be satisfied. The other members are both the remainder of the cast as well as an

audience before which the self-oriented member can air his personal difficulties, gain esteem or status, aggress or dominate. Neither interaction nor task effectiveness as defined in Chapter 3 is particularly rewarding to the self-oriented member unless such effectiveness contributes to his esteem, status, or to other personal gain of this sort.

Fouriezos, Hutt, and Guetzkow (*356*) centered attention on self-oriented behavior, showing that it could be reliably assessed by observers of discussion groups. Dependent behavior, succorant behavior, status-seeking, and domination attempts characterized self-orientation in discussion.

On the basis of a questionnaire survey of leaders in group work, Pigors (*825*) differentiated the "master" from the "educator." The "master" resembles what we call the self-oriented member. He was described by Pigors as more desirous of self-expression, socially bold, extrovertive, and egotistical. The "educator" is more interaction- and task-oriented. He desires to be of service, is introverted, interested in developing his followers, and more sympathetic toward others.

INTERRELATIONS. A dance club's main goals may center on convivial interaction. A generally interaction-oriented member will also be task-oriented in such circumstances. An important goal of a sorority may be to maintain or increase its status within the total campus community. In such a case, the self-oriented member will likely be strongly task-oriented as well. Similarly, the same college student may be self-oriented in class; interaction-oriented in his fraternity, and task-oriented on the athletic field. In class, he may continually display exhibitionistic tendencies, clowning and asking silly questions, sharing few of the group's goals; in the fraternity, he may be concerned primarily with identifying with other members and getting along with them; on athletic teams, he may play hard at the tasks assigned and strongly desire to win the game at all costs.

While his organization may have been created to achieve great things, a self-oriented, entrenched bureaucrat's goals may concern the extent to which the organization provides security for him. Conversely, a nation like France may have been searching for peace and security while its ruler, Louis XIV, sought fame and achievement by entangling the nation in dangerous foreign adventures.

During a flood threat, a task-oriented member of the community might seek security by working collectively to sandbag a levee to

prevent mutual disaster. The self-oriented community member might also seek security but do it by moving his personal possessions to high ground. Still a third member might seek security against the flood by blowing up the levee across the river to relieve pressure on his side. This would be task-oriented behavior with reference to his immediate neighbors but certainly not for those on the other side of the river.

The relative meaning of orientation is illustrated by the direction of focus of professional members of formal organizations. A number of observers, such as Reisman (*853*), have noted the differential orientation of professional members of formal organizations. Some seek recognition, advancement, and success in their larger professional grouping outside the organization. For example, the industrial chemist may be more concerned about the evaluation of his work by fellow chemists in other companies than by his administrative superiors in his own company. With reference to his own company, in a narrow view, the chemist is self-oriented; with reference to a regional or national association of chemists, or the progress of his discipline, the scientist is task- or interaction-oriented.

Other professionals may be more concerned with success in their own organization. For example, some college professors devote themselves primarily to teaching, campus committee work, and administrative problems, rather than participation in professional meetings and research publication. Again, if the professor's role is regarded as that of a teacher without responsibility to conserve or add to his field of knowledge, the professor inactive in campus affairs may be thought self-oriented. Conversely, if the profession emphasizes the professor's research role, the man active on campus may be viewed as self-oriented.

EFFECTS OF THE GROUP'S AGE ON ORIENTATION. A number of observers have commented on the changes in orientation occurring with the aging of a group. The descriptions have made use of concepts similar to self, interaction, and task orientation. For example, Riesman (*864*) has described the shift in America in the last 100 years from "inner-directedness" to "outer-directedness." Instead of concern for his task assignments, as such, or his personal contributions and needs, the contemporary man in America is one trained to get along with the group; sensitive to the attitudes, needs, and beliefs of the group; and allows himself to be directed by the group. Berlew (*123*), using techniques developed by McClelland and coworkers (*687A*), tested the

hypothesis that the need for achievement (task orientation) would be high during the growth of a civilization, and drop sharply by the time its maximum development was reached. During decline, it would drop further. Systematic examination of samples of Greek literature from different periods in the development of Hellenic civilization tended to lend support to the hypothesis.

The trend toward interaction orientation has been observed in developing school groups and in continuing group therapy sessions. Mey (*742*) described the emergence and change in leadership in the developing elementary school grades. At first, leadership is self-oriented, the leaders aiming to satisfy their own desires to dominate. Gradually, the "tyrant" gives way to the interaction-oriented "organizer." Similarly, Zimet and Fine (*1153*) found a reduction in needs for commanding and maintaining self-esteem and more concern with evaluation, understanding, and helping others with continued group "therapy" sessions among 15 school administrators. Initially defensive, hostile behavior was replaced by warmer, more friendly actions.

Merton's (*739*) discussion of anomie, or social disorganization, suggests similar trends. During periods of innovation, task goals are all-important. If the means of the ways of attaining the goals become dominant, ritualism is the result. The shift is from task orientation to interaction orientation. Selznick (*929*) describes the developing bureaucracy similarly. The originally task-oriented leader turns into an executive concentrating on organizational processes. Both Merton and Selznick describe still a later development to be found in Toynbee's (*1052*) civilization in distintegration, a development yet to come for the American society described by Reisman. Both the means and the ends, the interaction and the task, lose their interest. Merton describes this as retreatism, withdrawal from the challenge. Selznick's bureaucrats move from concern with organization, as such, to concern for their own positions. Likewise, Tead (*1019*) suggests that continuing success as a leader may become an end in itself to the detriment of task effectiveness of the group. In Toynbee's declining civilization, concern with creativity (task orientation) is replaced by abandon, withdrawal from challenges, asceticism, or self-mortification. The satisfactions with achievement accruing during the period of growth are replaced by a sense of drift, fatalism, or sin. Efforts are made to turn back the clock, to regress to an earlier more satisfying state or to fantasize in some

future Utopia. Instead of concern with achievement or relations with others, there is a withdrawal into the self, into higher religions.

For Toynbee, the task-oriented heroic leaders of the periods of growth are followed by the interaction-oriented organizers. A Caesar is followed by an Augustus; an Alexander by a Ptolemy. Finally arise the saviors through retreat into the past (Rousseau), the future (Marx), or another world (Christ).

SOME CONSEQUENCES OF SELF-ORIENTATION

IMPORTANCE OF SUCCESS RATHER THAN EFFECTIVENESS. Maslow (*724*) has observed that many individuals are motivated to lead by a neurotic power drive. Because of this urge to dominate, to increase in status and esteem, it is particularly rewarding to the self-oriented member for his attempted leadership to be successful regardless of the effectiveness of his leadership. The success of his attempts is more important in satisfying deep-rooted personality needs than ultimate task effectiveness resulting from his attempts to lead.

Neurotic or even psychotic drives are not uncommon among famous leaders. Cromwell exhibited hypochondria, delusions of persecution, melancholy, and childhood emotional instability. Julius Caesar revealed epileptic symptoms. Frederick the Great underwent severe traumatic experiences with his father resulting in such reaction formations as an abnormal fear of soap and water (Witty and Lehman [*1135*]). Napoleon was regarded as sexually inadequate, under strong feelings of inferiority and frustration in childhood. He could only be satisfied when he was acknowledged as world overlord as well as the single most valuable man alive (Ludwig [*683*]). Mussolini, Hitler, and Stalin, modern self-oriented megalomaniacs, shared the common experience of losing their fathers at an early age.

SELF-ORIENTATION DETRIMENTAL TO TASK EFFECTIVENESS. The self-oriented member's drive to interact regardless of group goal attainment suggests that he will attempt leadership independent of his expectations of reward for group success, per se, and independent of his ability to solve the group's problems. A case in point is Hitler's refusal to give up the power necessary for Germany to surrender, despite certain defeat and despite the consequent needless destruction brought on by the continued fighting in 1945. If Hitler must die, so must Germany.

Groups composed of many self-oriented members are much less likely

to attain task or interaction effectiveness, since movement of the membership is less likely to be directed toward group goals and since self-oriented members are less likely to relinquish control if they are ineffective leaders. This deduction is supported by Fouriezos, Hutt, and Guetzkow (*356*), who found that if such self-orientation was displayed in discussion groups, productivity was lower and members were less satisfied with the group's interaction, its decisions, and its leadership. An analysis of conferences by Guetzkow and Gyr (*444*) indicated that consensus and satisfaction by all with the group discussion was most likely to occur if little expression of self-oriented needs was prevalent in the group.

EFFECTS OF FAILURE. But since the self-oriented member's satisfactions accrue from his opportunities for successful interaction and for gaining esteem and status, he will cease attempting leadership if his attempts to influence are rejected—particularly if rejection is clear, public, and immediate. (Stotland [*1000*] reported that self-esteem is reduced by failure more when the failure is known publicly; hence, we expect the self-oriented member to be more sensitive to public failure.) He will show less persistence in the face of failure to lead. If his attempts to lead meet neither clear public acceptance nor rejection, it is likely that the self-oriented member will continue to be driven to attempt interaction by his personality needs.

EFFECTS OF CHANGING NEEDS. The self-oriented member's behavior will less likely be affected by the changing goals of the group as a whole. If he finds one mode of attempted leadership successful, and the group goals change, requiring changes in the leadership, the self-oriented member will be less likely to change and will eventually fail. (Theodorson [*1025*] noted that the initiator who fails to shift with shifts in group needs is resented, then rejected.)

DIVERTING THE GROUP. If he has the ability or power, the self-oriented member may try to divert the rest of the group away from its original goals if this will permit him to maintain his success at leading. The high school may be converted into an athletic agency by a self-oriented football coach appointed principal. The dictator, facing economic and social difficulties at home, may unite his followers in a foreign war initially irrelevant to the needs of his country. Since he has little concern with the goals of his group, the self-oriented member will be characterized by opportunism, will take advantage of events

providing the chance for him to succeed as leader, regardless of the effects of such behavior on the attainment of the original goals of the group.

EVALUATION OF GROUP EFFECTIVENESS. The self-oriented member's evaluation of the group's effectiveness—the extent it satisfies its membership—will correlate with the self-oriented member's evaluation of his own personal contributions to the group. In contrast, the task-oriented member's evaluation of group effectiveness will be influenced less by his evaluation of his personal contribution.

CONSEQUENCES OF TASK ORIENTATION

Compared to the self-oriented member, the task-oriented member must be more attracted to the group and its goals, perceive the group to be more ineffective, and perceive himself more able to solve the group's problems before he attempts leadership. Lincoln supposedly stayed out of politics for five years after his term in Congress because nothing was going on in public affairs that he cared about (Pigors [*826*]). Maslow (*724*) has suggested that in most American communities, the attractions are not strong enough to stimulate task-oriented members to seek political office. It is likely that only when emergencies arise; that is, when the group becomes highly ineffective, yet its goals are still attractive, that the task-oriented member is impelled to attempt leadership. Once the critical problems are solved, he is likely to retire again, leaving community politics in the hands of the more self-oriented leaders less concerned about community effectiveness, per se. David Ben Gurion retired to a desert kibbutz when he felt Israel's problems were being solved to an extent no longer requiring his abilities. He returned when a new crisis arose. Maslow's solution to maintain more effective leadership is for communities to seek out and draft task-oriented leaders.

EFFECTS ON PERSISTENCE. The task-oriented member will be more sensitive to whether his attempts are producing task effectiveness. He will cease attempting leadership if he finds his successful leadership results in less group effectiveness. Indirect support comes from a study by French (*365*), who reported that members with strong needs to achieve sustained the most productive effort when given continuing feedback that their performance was effective in carrying out their tasks. They were less productive if fed back information about the

adequacy of their interaction. If the group goals change, we expect that the task-oriented member will shift in his attempts to lead depending on whether he still thinks he has the ability to solve the new problems faced by the group.

TASK ORIENTATION CONDUCIVE TO GROUP EFFECTIVENESS. If most members are task-oriented rather than self-oriented, or if most behavior exhibited by members is task-oriented, it follows that the group will more likely move in the direction of its goals and eventually attain more effectiveness as a group. Phillips (*821*) noted that among 24 groups of school children playing a modification of "Twenty Questions," success at the task was greater in groups with more task-oriented communications and where members were more interested in discussing the problem. Again, Torrance (*1051*) found among air crews operating under conditions simulating survival following crashes in hostile country that task-oriented disagreement produced better decisions, increased ability of groups to adapt to emergencies, and increased acceptance of the group decisions.

CONSEQUENCES OF INTERACTION ORIENTATION

Compared to the self-oriented and the task-oriented member, the interaction-oriented member attempts leadership most when he perceives the interaction within the group to be less than satisfactory and he believes he has the skills to cope with the group's interaction difficulties. He is less likely to attempt offering new approaches to the solution of the group's tasks for fear of disrupting the interaction process, particularly his role in it. Kerlinger (*609*) noted that such interaction orientation was common in traditional Japan. Rather than "rock the boat," individuals went to great lengths to avoid suggesting decisions to problems. They sought direction from the group or the appointed leader. They felt they would have been brash to make their own decisions or express their own opinions. Circumlocution was common. They had to avoid giving offense to others at all costs as well as any mistakes bringing ridicule to themselves.

Tannenbaum, Kallejian, and Weschler (*1015*) comment that interaction-oriented appointed leaders avoid attempting leadership by imparting information to others for fear of losing "face" if the attempt is interpreted as inadequate or incompetent, or if it is regarded as uninteresting to the other members. Older industrial foremen in par-

ticular shirk their leadership responsibilities for fear of making mistakes while interacting with others.

French's (*365*) previously cited report on the effects of feedback also suggests that the efforts of members with strong needs to affiliate with others will be most sustained by feedback of information that their performance is resulting in harmony and good feeling within the group. Pepinsky, Pepinsky, *et al.* (*815*) induced interaction orientation or task orientation in different groups, then gave them two problems to solve. One, "30 questions," required little interaction; the other, a "treaty" problem, required bargaining and conflict of interests. The interaction-oriented groups were most disturbed by the treaty problem, while task-oriented members were satisfied with task success regardless of the problem.

PART IV

ABILITY TO LEAD

How does the leader indirectly reinforce behavior of others?

What is the difference between aptitude and proficiency?

What aptitudes are related to leadership?

Does empathy contribute to leadership?

Can ability derive from position?

Why must ability be considered as relative to the group's problems?

Why cannot a leader be too much more able than those led?

How does positive and negative transfer affect leadership?

What does an earlier history of effective leadership produce in a similar new situation seen as similar? Seen as dissimilar?

What does an earlier history of successful ineffective leadership do?

How can leadership potential be forecast? Is there any consistency?

What factors in childhood influence the leadership potential of the future adult?

What is the significance of adolescence to leadership as an adult?

What are the ways supervisors and executives are trained?

How do these methods of training conform to the principles of transfer and development of leadership?

CHAPTER 9

ABILITY AND PERSUASIVE LEADERSHIP

From my proposal did that edict come,
Which from your tedious exile brought you home.
The public vote at first was moved by me,
And my voice put the seal to decree.
—PLUTARCH, Lives (ca. A.D. *100*)

Persuasive leadership, the topic of this chapter, is illustrated in Critias' elegy informing Alcibiades of his influence in getting the assembly to vote to recall Alcibiades from exile.

Earlier, we considered the nature of leadership in terms of what *A*, the leader, does to change *B*, the follower. That is, *A* initiates structure for *B* or alters *B*'s motivation. But how is this done? What means are used by *A* to initiate structure or to change *B*'s goals? Three ways are suggested. If *A* has demonstrated his ability to solve problems, *A* can persuade *B*. If *A* has power to reward or punish *B*, *A* can coerce *B*. If *A* has both ability and power, he can act permissively to bring about desired changes in *B*.

In Chapter 7, the argument on who shall lead concluded that one way a member can exhibit effective leadership is through his ability to solve the group's problems. And the greater his ability, the more likely are his successes as a leader to be effective. For example, in an unpublished analysis, the writer correlated the American Council on Education Psychological Examination *L scores* (indices of verbal

intelligence and therefore possible partial measures of the ability to contribute to the group's effectiveness) with amount of successful leadership displayed by the seven members of an initially leaderless discussion group. Correlations were obtained for 20 such groups, indicating the extent to which ability and success were consistent in each group. These correlations or estimates of consistency between ability and successful leadership displayed correlated .22 with two observers' ratings of the level of group effectiveness reached by the neonate groups in a 30-minute discussion. On a retest, the consistency correlations correlated .23 with rated effectiveness.

Ability permits the leader to serve as an indirect or secondary reinforcer of the behavior of others. He cues the other members concerning how they may obtain their goals. This is persuasion. If *B* is *persuaded* by *A*'s suggestion or secondary reinforcement of the responses leading to goal attainment, *B* will accept *A*'s suggestions both publicly and privately. If *B* is *coerced* by the direct reinforcement power of *A*, he is likely to accept publicly *A*'s suggestions, although not necessarily be committed privately to them.

THE LEADER AS INDIRECT REINFORCER OF BEHAVIOR OF OTHERS

A fairly extensive body of theory and experimental literature supports the conception of the leader as an indirect or secondary reinforcing agent, a cue of effects. Both theory and experiment agree that one member, *A*, can more successfully and effectively change another, *B*, if *A* can inform, warn, signal, or indicate whether *B*'s behavior is likely to lead to goal attainment by *B*.

RELATED THEORY AND COMMENTARY. Effectively led workers, according to McGregor (*694*), operate in an atmosphere of approval, knowing whether they measure up to expectations, consistently disciplined and forewarned about changes that will affect them. Halsey (*470*) agrees that effective supervision requires recognition for effort by workers; impartial, fair treatment for adequate or inadequate performance by subordinates; and corrections of behavior in a considerate way.

LaPiere (*634*) remarks that the executive in conference may lead successfully by permitting random suggestions reinforcing those fitting his own desires yet leading others to believe they have formulated the final plans. Wittenberg (*1133*) adds that the leader must know when

to let matters take their course in a group and when to inject reinforcements. (Permissive leadership will be considered in detail in Chapter 13.)

Learned, Ulrich, and Booz (*641*) comment that persons tend to ignore the words and emphasize the reinforcing actions of their superiors. If management says volume of sales is unimportant compared to maintaining steady satisfied customers, but then institutes a bonus plan based on sales volume, salesmen will concentrate their efforts on volume rather than steady customers.

Conversely, the weakness of mass media as agents of influence is due to the lack of reinforcement that accompanies the propaganda effort (Lazarsfeld, Berelson, and Gaudet [*640*]).

EXPERIMENTAL EVIDENCE. Leadership in rats—where it does not normally occur—was produced by creating a situation in which one rat cued the reward for another (Miller and Dollard [*750*]). The behavior of the leader rat became the secondary reinforcement of the follower's behavior. Both Torrance (*1046*) and Levi (*653*) reported significantly greater improvement on survival problems when groups were fed back expert information in critiques after an initial training period. Workers were found to be more satisfied with a wage incentive system when the supervisor was reported to be doing a good job of explaining reasons for changes in the system (Mahoney [*702*]).

Many of the critical behaviors separating successful from nonsuccessful noncommissioned officers in situational tests were found by Flanagan, Levy, *et al.* (*338*) to focus on the differential reinforcing cues provided by the noncoms. Successful noncoms more often encouraged their men to follow rules and regulations, gave pep talks when the men were tired, and constantly checked the behavior of their men. Most pertinent is an experiment by Spector and Suttell (*973*) in which small groups of naval subjects were led by each of three methods; *reinforcement* leadership, *authoritarian* leadership, and *democratic* leadership. The reinforcement leader maximized positive reinforcement of correct plans specifically expressing approval for good problem solutions. Incorrect behavior was noted with suggestions for improvement and encouragement. The authoritarian leader made the group's decisions and did its planning. In the democratic operation, there was maximum opportunity for all men to participate in planning and sharing responsibility for decisions. The teams under reinforcement leadership

exhibited significantly better performance than those under other conditions. There was some suggestion that members of low ability profited particularly from this leadership style.

CONSISTENCY OF REINFORCEMENT. Digressing, we note that consistent reinforcement by one member of a group is likely to produce even more change in others and progress toward group goals than reinforcement less consistent in occurrence. (Consistency of reinforcement should be distinguished from partial reinforcement. Consistent reinforcement means that the same behaviors are rewarded or punished, never rewarded *and* punished. Partial reinforcement means that the rewards or punishments are irregular.) Roberts (*868*) suggested that in order for an older person to be successful in leading teen-age groups, he must be consistent. Likewise, Stouffer, Suchman, *et al.* (*1001*) hypothesized that group punishment must be consistent in order to be effective.

Robson and Chapin (*871*) found that particularly under conditions of higher motivation, continued success promoted increasing productivity in decoding messages. Highly motivated subjects were particularly sensitive also to sudden failure. Their productivity was likely to suffer more if success was followed by failure than subjects who valued the goal less. In the same way, Wilson, Beem, and Comrey (*1126*) observed that among skilled workers, supervisors of productive groups tended to be more consistent than supervisors of groups producing less.

PROFICIENCIES, APTITUDES, AND PERSONALITY: A DIGRESSION

Differences in ability to solve the group's problems may be due to individual differences in particular aptitudes, such as verbal facility; to more specific proficiencies, such as knowledge of parliamentary procedures; to personality differences, such as flexibility; and to the differences in knowledge supplied holders of different positions in a formal organization, regardless of who they are. Before proceeding to examine commentary and experimentation on the relation of ability to leadership, it is important, particularly for understanding leadership training, to distinguish between various aspects of ability to solve the group's problems. For our purposes, individual differences in personality traits are regarded as differences in response tendencies to a wide spectrum of situations. When we say a man is highly sociable, we mean that in a

variety of situations with other persons, and in situations with many different kinds of persons, the man will exhibit a similar pattern of behaviors; friendliness, familiarity, informality, affability, communicativeness, accessibility, inclination to enjoy his interaction with others. He will describe himself so. Others will do the same. Given a number of projective sketches to make up stories about, he will tell stories indicating interest in others and desire to affiliate with others. It is probable that most such personality traits as sociability actually are not as generalizable. The intensity and frequency with which a person shows friendliness depends upon with whom he interacts and the situation they both face. But, if we test the same individuals in various groups and situations, we will find that some of the differences in amount of sociability shown are due to the individuals themselves, above and beyond situational and group variations.

Attitudes have the same characteristics as traits, with one additional feature. Attitudinal behavior acts back or refers to what stimulated the behavior (Bass [*60*]). For our purposes, attitudes will be considered generalized like personality traits.

An aptitude, like a personality trait, is a concept covering a broad spectrum of behavior. Aptitudes concern behaviors which can be evaluated in terms of adequacy in completing a task, overcoming an obstacle, or reaching a goal. Proficiencies similarly can be evaluated but concern more specific behavior. For example, spatial visualization *aptitude* refers to how well a person perceives; judges; estimates; successfully "works with" a wide range of shapes, sizes, and forms in two and three dimensional space. *Proficiency* in blueprint reading concerns how successfully he "works with" standardized specific methods of portraying three-dimensional objects in two dimensions.

Heredity and maturation play a similar role in influencing the development of both aptitudes and proficiencies, but the development of aptitudes requires a wide range of related experience in contrast to the narrow, specialized training necessary for developing proficiency. There are many ways in which aptitudes can be reinforced by experience during childhood. If a father owns a basement workshop which he allows his son to use, if the son is praised for his mechanical activities, chances are that his son will develop higher aptitudes in the mechanical area, such as spatial visualization, manual dexterity, and mechanical comprehension—all of which can be measured by psycho-

logical tests—than if father had not had a workshop. When the time comes for the son to enter a technical school for specialized training to become proficient as a mechanical engineer, this boy is probably somewhat more likely to succeed than others with the same inheritance who do not score as high on the preengineering aptitude tests. Empirically, we can demonstrate the correlation between the aptitude test scores and proficiency. Rationally, we shall expect this relation because the particular aptitudes of spatial visualization and mechanical comprehension involve behaviors which will be more specifically reinforced during training as a mechanical engineer.

This discussion will be referred to again when we consider how leaders are trained. The kind of training depends on which group problem-solving abilities we are considering: traits, aptitudes, or proficiencies.

APTITUDES AND LEADERSHIP

If the more able member is more likely to be effective if he attempts leadership, then, consistent with the theorems on who shall lead, the member with more ability is more likely to attempt leadership and succeed. The member with less ability tends to reduce or avoid attempting leadership. We will consider first the contributions of aptitudes to leadership.

VERBAL APTITUDE. Following an examination of working relationships among executives, Learned, Ulrich, and Booz (*641*) concluded that successful leadership implies the ability to handle the interaction process. A manual on conference leadership emphasized the need for clear rapid thinking, ease of expression, analytical ability, and tact (Standard Oil [*980*]). After his review of the experimental literature, Stogdill (*988*) concluded that "some of the most searching studies of leadership . . . reveal the capacity for ready communication as one of the skills associated with leadership . . ." (p. 44).

A large amount of experimental evidence supports the proposition that successful leaders are apt verbally. Green (*433*) found tested vocabulary correlated .30 with leadership in conferences. Similarly, success in initially leaderless discussions correlated .35 with linguistic test scores of sorority members (Bass, Wurster, *et al.* [*95*]), .32 with similar test scores for fraternity pledges (Wurster and Bass [*1143*]) and .25 for sales and management trainee applicants (Bass [*61*]). Thurstone

(*1038*) found that higher-paid administrators surpassed lower-paid ones in linguistic aptitude test scores but not in word fluency, per se. Positive relations between leadership and verbal aptitude were also reported by Terman (*1020*), Burks (*173*), and Mallay (*707*).

INTELLIGENCE. Intelligence is a cluster of aptitudes usually including verbal, spatial, and numerical factors, depending on the intelligence test used. A host of studies support the contention that successful leaders are more intelligent than those they lead (but as will be discussed later, not too much more so). Table 2, modified from reviews by Stogdill (*988*) and by Bass (*64*) enumerates the research findings relating intelligence and leadership among school children, college students, administrators, factory supervisors, and military subjects. Of 19 analyses listed in Table 2, all but a few yielded significantly positive relationships between intelligence and leadership. In 1957, R. D. Mann (*712*), reviewing 196 results from 28 studies, found that 88 percent of these correlations between intelligence and leadership were positive.

JUDGMENT, ORIGINALITY, AND ADAPTABILITY. Reviewing positive findings by Bellingrath (*110*), Drake (*282*), Webb (*1092*), Cowley (*245*), Dunkerly (*287*), Cox (*247*), Eichler (*296*), and Flemming (*348*), Stogdill (*988*) found leadership to be a function of a number of other aptitudes closely associated with intelligence, such as speed and accuracy of decisions, soundness of judgment, originality, "common sense," and adaptability to changing situations.

EMPATHY AND SOCIAL SENSITIVITY

Included in ability to solve the group's problems is the ability to understand, appreciate, and exhibit sensitivity to those problems. Indeed, one seldom can solve a problem unless he knows what it is. Of major interest, particularly in recent years, has been the question concerning social sensitivity and success as a leader. The verbal "formula" describing the relationship in terms of "you" and "me" may be as follows: "It is not enough for me to know how to get you what you want, or to tell you how to get you what you want. To lead you, I must be able to know what you want and when you want it as well as what prevents you from getting what you want."

The actual success displayed by an individual in estimating the tendencies of others is not only a matter of aptitude. Empathic success should increase with increased motivation to attend to clues. It should

TABLE 2. Obtained Correlations Between Intelligence, Knowledge or Scholarship, and Successful Leadership

Investigator	Correlation of Leadership with: Intelligence	Knowledge or Scholarship
Ackerson (*4*)	.25 [a]	.16
Bass and Coates (*77*)	.25	
Bass and Wurster (*92*)	.45	.31
Bass, Wurster, *et al.* (*95*)		.05
Bellingrath (*110*)	.14	
Drake (*282*)	.47	.11
Eichler (*296*)	.06	
Flemming (*348*)	.44	
Goodenough (*420*)	.10	
Howell (*549*)	.08	.39
Levi (*652*)	.25	.16 [a]
Newstetter *et al.* (*785*)	.17	
Nutting (*790*)	.90	.11
Parten (*804*)	.34	
Partridge (*808*)	.54	
Reynolds (*856*)	.22	.27
Sheldon (*944*)	.06	.19
Stolper (*997*)		.46
Vernon (*1076*)	.32	
Vernon (*1077*)	.32	.25 [a]
Zelleny (*1147*)	.44	

[a] Average for two or more samples.

also increase with information available about others' behavior. Two persons may display the same success in guessing the motives of some other members. One estimator may be more apt; the other estimator may be more interested in the question because of momentary situational demands or acquired personal motives. However, here we shall focus on individual differences in ability to estimate. A successful teacher "senses" from facial expressions, questions or lack of them, restlessness, and lack of response whether he is continuing to meet the needs of his student audience. An effective orator or actor requires similar skills. In objective terms, successful leadership is promoted by the would-be leader's ability to estimate the group's attitudes, motives, and present level of effectiveness.

RELATED COMMENTARY. Wittenberg (*1134*) emphasized the need-estimating aspect of leadership. For him, the job of the leader is to

know what the individual members need and to then employ the group process so that the members will satisfy these needs. Similarly, Kallejian (*586*) suggested that one who understands his relation with others, one who is more sensitive, will be responded to more positively. In the same vein, Gibb (*399*) hypothesized that persons who are accepted by a group will perceive the group more accurately. Again, in an unpublished paper, Gage commented that the better you understand people the better you can get along with them (Nagle [*779*]).

Coyle (*248*) remarked that to work with youth, group leaders must understand the various motives that draw the group together in order to "find the appropriate form to clothe their collective needs" (i.e., the leader must understand the bases of attraction to the group). Titus (*1043*) noted that in order to be effective, particularly in large groups, the leader must be able to choose the group's objectives wisely, forecast the cost of obtaining the objectives, the likelihood of doing so, and the degree to which goal attainment will be satisfying to the members.

In traditional Japan, the chairman of a group made its decisions for it. Once the leader made his decision, it was regarded as the "will of the group" and accepted without challenge. But, at the same time, the leader had the responsibility for divining the will of the group. He had to understand what was wanted. He had to *hara de wakaru* or "understand with his belly" (Kerlinger [*609*]).

RELATIONS BY DEFINITION. Some of the related positive associations between empathy and leadership are complicated by artifact and need to be discounted. Following a review of eight studies, Lazar (*639*) concluded that in judging the attitudes of groups, people err in the direction of their own beliefs or opinions. By definition, the opinions of a group following interaction are more strongly influenced by the successful leaders of the group. It follows that the forecasts of group opinion made by successful leaders will be more accurate than those estimates made by less successful leaders, since the opinions are close to those held by the successful leaders. Thus, when successful leadership was defined in terms of influence on the group decision, Talland (*1013*) demonstrated that the leader is a better estimator of final group opinion because it is closer to his own initial opinion. But the leader was not more accurate in estimating opinion prior to interaction.

POSITIVE RESULTS. Surveying 15 studies reporting 101 results concerning leadership and empathy, Mann (*712*) observed 74 percent of

the results were positive and concluded that while researchers have been unable to obtain positive results which are statistically significant, they have obtained positive results with impressive consistency. Kerr and Speroff (*610, 611*) and Van Zelst (*1074*) reported notable success in forecasting salesmanship success, union leadership success, and foremanship success with a most brief test purporting to measure a general empathic ability. Likewise, Chowdry and Newcomb (*218*) found that leaders tend to be able to judge group opinion better than nonleaders or isolates. But the superiority of leaders over nonleaders was restricted mainly to issues relevant to the specific groups in which they were leaders. When matters concerned groups in which they were not leaders, their superiority tended to disappear.

Studies by Fiedler (*326A, 326B*) of basketball teams and surveying teams found they were more effective if their esteemed members perceived preferred members to differ from rejected members. As will be noted in Chapter 15, esteemed members are more likly to exhibit successful leadership. Hence, we infer that Fiedler's groups were more effective when those who successfully led the groups were more sensitive socially. Fiedler (*326B, 326D, 326E*) made similar findings for B-29 bomber crews, tank crews, and open-hearth steel shop groups. The groups were more effective where the crew leader or foreman discriminated more distinctly between behavior of members with whom he could work well and behavior of members with whom he had difficulty.

Nagle (*779*) reported high correlations between departmental productivity and the ability of department supervisors to estimate employee attitudes. Anderhalter, Wilkins, and Rigby (*17*) found that Marine OCS candidates showing the highest ability to predict other candidates' future effectiveness were most likely to make effective company officers themselves. Infantry squad leaders were found by Greer, Galanter, and Nordlie (*435*) more accurate than other squad members in their perceptions of the esteem of other members. The squad leaders were more accurate in estimating their own positions also, but here again an artifactual relationship is involved (Campbell [*186*]). The fact that Dymond, Hughes, and Raabe (*294*) reported that more popular children showed more insight may be a matter of definition. While the effects of the discrepancy between self-esteem and actual esteem will be considered in Chapter 16, the difficulty in examining the matter should

be noted here. Insight is usually defined as a positive function of the difference between an estimate of self-esteem and actual esteem: insight = esteem — self-esteem.

By definition, a positive correlation is created between insight and esteem. Since positive correlations are the rule between successful leadership and esteem (see Chapter 15), automatically we obtain positive relations between insight and leadership. Another complication is involved. As noted by Bass (*60*), everyone in the group can make more accurate judgments about the leader than about other members. His behavior is more visible, more frequent, and more observable than the behavior of most other members. It is not surprising to find that he, the leader, is more accurate in his self-perceptions than are other members. Cronbach (*250*) has provided a detailed critique of the problems in measuring empathy.

NEGATIVE RESULTS. A number of studies of the relation of empathy and leadership fail to support the hypothesis that they are positively related. Marchetti (*713*) found no relation between a grocery manager's ability to predict employees' attitude test responses and the manager's rated efficiency by his superiors. Shartle, Stogdill, and Campbell (*936*) reported a slight negative relation between naval officers' popularity as leaders and their tested ability to estimate group opinion.

Studies attempting to correlate a member of a neonate group's first impressions of others with his initial success as a leader have been negative in outcome for the most part (Bell [*107*]; Hall [*458*]). Likewise, Hites and Campbell (*520*) found little difference between fraternity leaders and nonleaders in their abilities to estimate group opinion.

RESOLUTION OF EXPERIMENTAL DIFFERENCES. In trying to resolve some of the differences in conclusions reached by different investigators, it should be kept in mind that the present theory does not require that a successful leader be able to solve all problems, or be sensitive to all problems; rather, he must be sensitive to those problems found in groups he leads. Chowdry and Newcomb's results cited earlier clearly illustrate the point. Greer, Galanter, and Nordlie (*435*) emphasize this, suggesting that they obtained positive results while others such as Hites and Campbell did not because their leaders were asked to estimate matters more relevant to the members' goals. Accuracy of first impressions do not appear critical to solving the group's problems either.

Hedging further, it should be kept in mind that the adequacy of our entire theoretical framework does not depend on the question of whether empathy contributes to leadership, since we do have the option of rejecting the assumption leading to its deduction, namely, that to manipulate something, we must be consciously aware of its presence or absence. The success of some water diviners and the importance of subliminal stimulation tends to suggest otherwise.

Stogdill's (*988*) conclusions of ten years ago, based on a summary of 20 earlier studies on the subject of social sensitivity and leadership, are still relevant: ". . . alertness to the surrounding environment and understanding of [social] situations are intimately associated with leadership ability, yet very little is understood regarding the nature of these processes" (p. 48).

PERSONALITY AND LEADERSHIP

Ability to solve problems must be conceived broadly enough to include certain perceptual tendencies of the individual often considered to be basic personality traits. For example, in a situation where members do not vary in status initially, such as in initially leaderless groups, Gibb (*395*) pointed out that the social setting is a highly ambiguous one. The major problem concerns the setting up of a social structure to solve the difficulties of uncontrolled interaction. Bass, McGehee, et *al.* (*88*) demonstrated that extremely authoritarian personalities as measured by the *F* scale (Adorno *et al.* [*6*]) are least likely to attempt or exhibit successful leadership behavior in initially leaderless discussions. Moreover, Bass and Coates (*77*) found significant correlations of [illegible] and .33 between tendency of ROTC cadets to display successful leadership in initially leaderless group discussions and their scores on two measures of perceptual flexibility.

This, in turn, may account for the finding by Klubeck and Bass (*616*) that persons who cannot exhibit much successful leadership in such situations cannot profit from brief coaching sessions in which a common fund of knowledge about how to be a leader is provided them. Basic changes in personality may be required by long-range psychotherapy for such individuals to manifest much increase in successful leadership behavior.

OTHER PERSONALITY-LEADERSHIP RELATIONS. There are a number of other traits frequently found with some consistency among successful

leaders in a variety of groups and situations, such as persistence, consistency, self-confidence, sociability, need for achievement, and dependability (Stogdill [*988*]). However, these tendencies contribute to a member's likelihood of success as a leader mainly by increasing his motivation to attempt leadership, by increasing his esteem in the eyes of the other members, or in other ways. These will be discussed later when relevant.

PROFICIENCY AND LEADERSHIP

Ability to solve a group's problems may be a highly specific proficiency developed with special education or training. Britt (*163*) comments that leadership of any activity requires a certain amount of skill in that activity. As noted in Table 2, a large number of investigators have generally obtained positive correlations between knowledge, scholarship, and successful leadership. From 11 such studies, Stogdill (*988*) concluded that specialized knowledge contributed to success as a leader. Wickert (*1115*) found that the successful combat air crew leader exhibits outstanding flying proficiency.

Other evidence of the greater knowledge to be found among leaders is found in studies of political and labor leadership. Labor union leaders tend to be better educated than the general population, according to a survey of 203 policy-making American union leaders.

The specificity of proficiencies makes it less easy to cite a particular skill common to successful leaders in a wide variety of situations. Physical proficiencies are important in leading adolescent boys; knowledge of the union contract in force is helpful to the foreman and shop steward. But just because two out of three United States Presidents studied law does not mean legal training, per se, is generally significant for leadership. On the other hand, the obvious benefits of a legal education are obvious to would-be political leaders in a democracy. The relevancy of proficiencies to the needs of the group will be considered later again in more detail.

ABILITY THROUGH POSITION

Knowledge and ability will lead to successful leadership behavior regardless of whether the knowledge is an attribute of a member as a person or is due solely to his position. For example, Kelley (*601*) and Trow (*1058*) found that the member whose position in a communica-

tion system is most central to the system and provides him with the easiest access to receiving and sending information is most likely to be perceived as a leader of the group. The more members vary in the ease with which each can send and receive information, the more likely are some to become perceived as leaders over others. This in turn suggests one reason why it is difficult in many political organizations for a party out of power to regain office when the party in power has control of all official channels of communication. Again, in primitive countries, it is the villager who can read or who owns the only radio who becomes the opinion leader in the village because of his access to information (Katz and Lazarsfeld [*596*]).

Bates (*97*) noted that while it did not have the authority, coördination of activities in bomber maintenance units was carried out informally by the flight line maintenance office, because it had the information necessary to synchronize performance.

We can increase the attempted and successful leadership of specific members arbitrarily by providing those members with additional information necessary to meet the needs of the group, to solve its problems. Andrews (*24*) commented, "By providing information to the supervisor to pass along to employees, we can strengthen his position as leader of the group, and increase satisfaction and cohesion within the group. Because he has more information than the other members, receives information sooner, and passes it along at the proper times, members turn to him as a source and also provide him with information in the hope of receiving some in return" (p. 12).

Hemphill, Pepinsky *et al.* (*502*) systematically varied the amount of information received by each member of problem-solving groups. On most problems, initial possession of information relevant to solving the group's problems increased the tendency of a member to attempt leadership.

RELATIVITY OF ABILITY TO SOLVE THE GROUP'S PROBLEMS

Ability to solve the group's problems is a relative matter. A pure mathematician may be vastly superior to stevedores in the arithmetic of space, yet communication difficulties among a number of factors might make it impossible for him to supervise effectively the stevedores' loading of the hold of a ship. Similarly, the mathematician may successfully serve as chairman of a mathematics department, but he may be

inadequate to solve the problems of a department of agricultural statistics. Ability of a member to help a group must be considered in light of the group's problems. Superior ability to knit will not make one more likely to be a successful leader in the athletic field, nor will physical superiority make one more likely to be successful as leader of a ladies' sewing circle. As Brown noted (*165*), the leader must be superior to other members in one or more characteristics relevant to the problems facing the group. The choice of leader is dictated by the needs of the group (Murphy [*773*]). Following a review focusing on military studies, Jenkins (*577*) observed that in most of the reports examined, leaders in a given field were superior to other members in skills pertinent to that field.

An ability relevant to solving the problems of a group of Iowa farmers may be irrelevant to solving the problems of a submarine crew. The lists of abilities and traits desirable for leadership seldom mention criminal or antisocial tendencies, yet Clemmer (*227*) found that 14 leaders among the inmates of a state penitentiary were more criminalistic than the average inmate. Such leaders offered no persistent goals, but served to provide entertainment to offset the dullness of prison.

Bird (*130*) reviewed approximately 20 investigations of personal traits and abilities associated with leadership. Among traits mentioned in these studies were:

courageous	kind
dignified	loyal
fair	mild
friendly	noble
honest	open-minded
just	sincere

Yet, as Gilbert (*406*) observed following his clinical assessment of the captured Nazi leaders, brutality, uncompromising hardness, deceitfulness, treachery, paranoid hostility, and willingness to murder were necessary for Nazi leadership. Hitler's abilities and traits made him a successful leader of pre-1945 Germany for a number of reasons, all supporting the relativity of ability to the group's problems.

1. He symbolized the frustrations of many Germans in socioeconomic, military, and national spheres.

2. His paranoid tendencies made him outspokenly aggressive, fitting with trends in his culture.
3. He channeled vengeful heroic fantasies consonant with the demands for strong leadership in his authoritarian culture.
4. His insincerity and duplicity aided him in convincing those with heterogeneous or conflicting interests of their common goals.

Within any rigid, stable social order, when the order cannot adapt itself to new challenges, Frank (*360*) suggests the task of leadership becomes that of forcing a change. The successful leader may be one who arouses emotions, particularly destructive and aggressive tendencies. This is indeed far afield from the mildness and kindness likely to promote success as a leader in, say, a farmer's coöperative. The military are often faced with the dilemma that some of the best combat officers make the worst garrison leaders, and vice versa. Toynbee (*1052*) traces the change in abilities required of the leadership as a society proceeds through various stages of growth and decline. During its growth in response to physical or social challenge, strong, creative, heroic abilities predominate. During disintegration, the savior comes to the fore. Similar changes appear in the growth of a business organization. The new, struggling business may require aggressive, "hard-headed," creative, high-pressure nonconformists for adequate leadership; the old, well-established concern may require a conservative, relaxed, cautious executive more sensitive to human and organizational relationships and demands.

Consistent with the aging of our whole population, present-day legislative, judicial, diplomatic, military, religious, and education leaders are all significantly older than their predecessors who held the same nominal positions earlier. For example, the mean age of a United States senator was 47 in 1825; in 1925, it was 57 (Lehman [*649*]).

Although the advent of television campaigning and women voters has led some political analysts to emphasize physical attractiveness as necessary to win elections, a striking physique still seems relatively unimportant among adult groups in our society; yet political leadership of the North American Indians became dependent on physical appearance and the prowess necessary in the struggle with the white settlers (Bernard [*124*]). Among children in our society, leaders do tend to be somewhat taller and heavier, with better physiques and athletic ability

(Stogdill [*988*]). Yet few officers of professional organizations reached their positions because of their physique.

Goodrich (*425*) contrasted behavior of leaders emerging from groups all of whose members were high in authoritarianism as measured by the *F* scale (Adorno *et al.* [*6*]) with behavior of leaders where all members were low in *F* scale scores. Leaders of the "highs" had to be more assertive than leaders of the "lows."

Whyte (*1111*) astutely observed would-be gang leaders capitalizing on the relativity of ability. He noted that members would increase their likelihood of success as a leader or maintain their success by moving the group into activities in which they were proficient.

SUPERIORITY RELATIVE TO THE GROUP

The leader cannot be too superior to those he leads. The leader must be more able to solve the problems of the group, but not too much more able.

Hollingworth (*532*) found that among children with a mean IQ of 100, the IQ of the leader was between 115 and 130. A child of 160 IQ had very little chance to emerge as leader of the group, although the same child might have been successful if the average IQ in the group had been 140 instead of 100. Hollingworth concluded, ". . . the leader is likely to be more intelligent, but not too much more intelligent, than the average of the group led" (p. 131). Finch and Carroll (*329*), comparing 66 gifted, 66 superior, and 66 average children and Warner (*1085*), studying boys' gangs, reached the same conclusions. McCuen (*689*) noted that leaders of college student organizations are selected who are only slightly above average for their respective groups. Riley and Flowerman (*866*) observed that esteem (hence leadership potential) goes with being "smart, but not too smart."

A number of factors may militate against the "too superior" member as a leader.

1. If vastly superior in ability, the would-be leader may no longer appreciate the group's problems or be interested or concerned with helping solve them: ". . . clinical observers . . . have repeatedly pointed out that persons of higher intelligence may be rendered ineffectual . . . through extreme self-preoccupation and inhibition to action, the latter of which is found to be negatively correlated with leadership" (Stogdill [*988*], p. 49).

2. Too great discrepancy may cause the superior individual to leave the group because it no longer is likely to be rewarding to him; or it may cause the inferior members to withdraw from the too superior individual and seek superior but not too superior leadership. For example, Warner (*1085*) contrasted older boys with low IQ grouping with younger boys only slightly higher in IQ to their own. "Differences in interests, goals, and activity problems also act as barriers to joint participation, which is a necessary condition for group leadership" (Stogdill [*988*], p. 45).

3. The too superior member may experience too much difficulty in communicating his superior "know-how" to the other members. Again Stogdill comments, "The average child cannot comprehend a large part of the vocabulary employed by a child of unusually superior intelligence to express exact meanings in relation to his more mature and complicated interests" (p. 45).

4. The superior member may be so far in advance of the others that accepting his ideas would require too radical a change in behavior, so his attempts to lead are rejected.

Spiller (*976*) commented that "One cannot be both truly great (an outstanding leader) and truly be a pioneer." From an analysis of the biographical data, Spiller concluded that most outstanding leaders are not original thinkers, but popularizers profiting from the "innumerable" contributions previously made.

CHAPTER 10

DEVELOPMENT AND TRANSFER OF ABILITY TO LEAD

The direction education starts a man will determine his future life.
—PLATO, The Republic, (ca. *390* B.C.)

We have just concluded a discussion of what motivates men to attempt leadership and what makes them able to lead. We will now consider how ability to lead depends on the previous experiences of those who attempt to lead and those to be led. We will begin by examining how the perceived or actual similarities in the problems facing a group affect attempted and successful leadership. Next, we will proceed to discuss the development of the ability to lead. This approach follows Cowley (*245*), who observed that great leaders "obtained their leadership first in one situation and . . . they then transferred that leadership to other similar situations and later from those similar situations to situations further removed" (p. 152). Finally, some gained sufficient esteem and experience in these earlier efforts to make them likely to succeed as leaders in almost any situation they entered. Bogardus (*141*) echoes the same opinion. No leadership situation stands entirely alone. An outstanding leader is one who has mastered many types of social situations.

TRANSFER OF LEADERSHIP

What we know about the transfer of learning can guide the formulation of principles of leadership behavior, since, as McGeogh (693) suggested, all complex psychological events are a function of transfer.

NATURE OF TRANSFER

Learning to make an old response to a new stimulus is a condition favoring *positive* transfer. The amount of that transfer is a function of similarities among associated stimuli and responses. It increases with the amount of associated stimuli and responses. It increases with the amount of original training. The probability of transfer is much higher if subjects are taught or given a set to apply the principles and are taught to analyze similarities between old and new situations.

Learning to make a new response to an old stimulus yields negative transfer.

> A general principle, a method, or set, acquired in one situation, may be used in another where it does not fit, with the result that the subject performs less well than he would have without the set (mode of attack or other general way of reacting). . . . A set to look for certain cues actually not present in the test activity, or a set against the activity, itself may mediate negative transfer. Similarly, an attempt to utilize a principle which does not apply to the problem will retard solution (McGeogh [*693*], p. 444).

TRANSFER EXPERIMENTS. In the typical transfer experiment, the experimental group learns or adjusts to or solves the problems associated with situation *A*, and then does the same for situation *B*, while a control group, closely matched in biological status and motivation but without the opportunity to experience *A*, also performs in situation *B*. The speed, accuracy, and extent the experimental group learns or adjusts to *B*, compared to the control group's mastery of *B*, indicates the amount of transfer that has occurred—the degree to which the experience or learning of *A* has influenced the adjustment to *B*.

EDUCATION FOR TRANSFER. One of the fallacies of classical education was its failure to recognize the fact that more transfer results if the new situation in which the response is to be applied is similar to the old situation in which the mode of responding is learned. It was believed that any learning would facilitate any later learning. Thus, the rote learning of mathematics, of Latin, and of English grammar

were thought to "train the student to think" so that he could go out into the world prepared to master any new situation that came along. The reason for the partial success of classical education had little to do with the merits of the education itself. Since only the relatively superior student was able to grind his way through such a curriculum, he could, upon graduation, cope with adult social, cultural, and economic life because of his intelligence and motivation—not because of his education.

POSITIVE OR NEGATIVE TRANSFER MORE COMMON? The more the learner sees common trends, relationships, and elements in his old and new situations, the more transfer will occur. If the situations are actually similar, then perceiving them as similar facilitates performance. But if indeed they are actually different, perceiving the situation as similar will impede performance in the new situation.

McGeogh (*693*) suggests that positive transfer is more common. "In both laboratory and life it is possible more often than not to perceive and analyze similarities with sufficient exactness to permit an application of already learned principles, methods of work, and sets with enough adequacy to achieve positive transwer" (p. 444). More positive rather than negative transfer should ordinarily occur in individual learning and problem-solving.

We will emphasize the significance of perceiving and analyzing similarities. While McGeogh was probably correct in suggesting that isolated individuals solving intellectual and mechanical problems or learning materials can perceive and analyze similarities usually with little error, the cues in social situations are likely to be far more ambiguous; perception and analyses of similarities are likely to be much more subject to errors. These errors and the resultant negative transfer produce a variety of possibilities of transfer of attempted, successful, and effective leadership. Both the would-be leader and the potential follower may err in judging the similarity of a new situation to an old one; only one or the other may err; or both may correctly judge the similarity between the new and old situations. Each of these possibilities yields different outcomes.

Misperception of the similarities and differences in social situations and the resultant negative transfer is not uncommon. Evidence supporting the occurrence of negative transfer in social settings will be presented later in this chapter.

While positive transfer in social situations is still probably more frequent than negative, both are to be expected depending on circumstances.

THE ARGUMENT

Two assumptions, already mentioned, about transfer derive from two particular facts previously mentioned about transfer of training. The third assumption is made on the basis of existing empirical evidence:

1. Positive transfer (transfer facilitating performance) from an old to a new situation will be greater the more the new situation is similar to the old one, the more the new situation calls for the same behavior as the old to attain goals.

2. Negative transfer (transfer detrimental to performance) will be greater the more the new situation, different from the old one and requiring new modes of reacting, is responded to with the old ways of behaving to achieve goals. The new situation is responded to as if it were similar to the old when it actually is not. It is perceived as requiring the old ways of behavior when actually new ways are necessary.

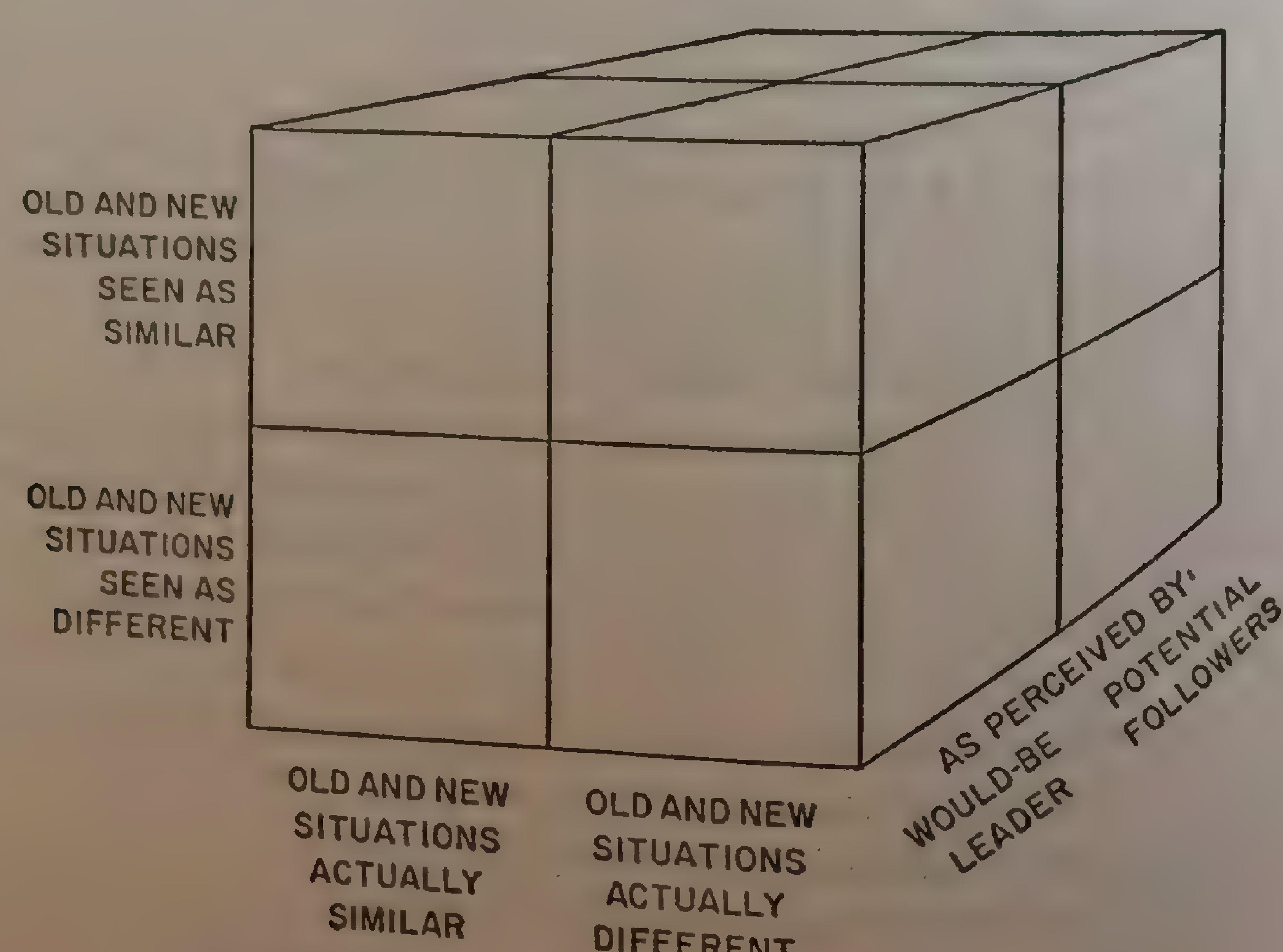


FIGURE 5. Eight Possible Transfer Conditions.

3. Both positive transfer and negative transfer occur commonly in social problem-solving and learning occurring among persons in interaction.

Figure 5 portrays the eight possible transfer conditions (derived from combinations of the above postulates) which are expected to yield the variety of outcomes now to be described.

MAXIMUM POSITIVE TRANSFER: THE EARLIER SUCCESSFUL-EFFECTIVE LEADER

Consider a new situation, actually similar to an old one. Consider that a leader, effective (hence successful) in the old situation sees the similarity of the new situation. Consider also that the rest of the group sees likewise. Assuming task orientation by all concerned, we expect that the earlier-effective leader will attempt an amount of leadership that is maximum for his personality, the available opportunities to communicate, and so forth, since he sees himself able to solve the group's problems in the new similar situation as he did in the old situation. All other things being equal, the proportion of his attempts that will succeed will be at a maximum also, since the other members see that he has the ability, demonstrated earlier, to solve the problems of the group in the new situation. Finally, the proportion of the successful acts likely to be effective will also be at a maximum, since the leader has the same necessary ability in this new similar situation as he had in the old one.

DEPARTURE FROM MAXIMUMS. We depart from a maximum attempt to lead if the earlier-effective leader does not see the new situation as similar. We depart from a maximum proportion of success per attempts if the other members do not see the new situation as similar. Finally, we depart from a maximum ratio of effective to successful leadership if the new situation is actually different. (Here negative transfer is more likely to occur, for the old effective responses are not necessarily as likely to work; yet these old modes of responding will occur, interfering with the necessary new ways of solving the new problems facing the group.)

MINIMUM POSITIVE TRANSFER: THE EARLIER SUCCESSFUL-INEFFECTIVE LEADER

Let us substitute for the earlier successful-effective leader in the conditions generating maximum attempted, successful, and effective

leadership, a member who in the old situation had been successful as a leader, but whose successful leadership had been ineffective, resulting in the group's failure to reach its goals.

If this member is task-oriented, all other things being equal, he will attempt a minimum amount of leadership if he sees the new situation as the same as the old one. If the other members see the situation as the same, they will be least likely to accept his renewed attempts to lead. If the new situation is actually following old patterns and old problem-solutions, he is least likely to be effective, if he is successful.

DEPARTURE FROM MINIMUM CONDITIONS. We depart from a minimum attempt to lead if the designated earlier-ineffective leader sees the new situation as different from the old one (or sees himself as having new ideas, new solutions, new abilities); we depart from minimum likelihood of success, if others in the group share the leader's perception that a new situation exists, and we depart from minimum likelihood of effectiveness, if the new situation is different.

MINIMUM POSITIVE TRANSFER: AN EARLIER-UNSUCCESSFUL LEADER

Let us now substitute in the new situation a member who attempted leadership in an old situation but was unsuccessful. His attempts to influence were rejected. If he sees the new situation as similar to the old one, he will be least likely to attempt leadership. If others also see the new situation as similar, they will be least likely to accept his renewed attempts. (We assume that members are consistent in their reactions to others in the absence of changes in situation.)

DEPARTURE FROM MINIMUMS. If the earlier-unsuccessful leader sees the new situation as different, he is more likely to attempt leadership; if others also see the new situation as different, they are more likely to accept his attempts to lead. (Less generalized rejection will occur, the more different a new situation from an old.)

MINIMUM POSITIVE TRANSFER: AN EARLIER NONATTEMPTER

Finally, let us consider a member who did not attempt leadership in an old situation. Assuming he has not changed personality, motivation, learned new responses, or become more secure in the group, if he sees the new situation as the same as the old one, he is most likely to respond in the same way: by not attempting leadership in the new one (i.e., there is consistency in the tendency to attempt or avoid attempt-

ing leadership in a given stimulating situation). On the other hand, if he regards the new situation as different, all other things being equal, he may act differently and attempt somewhat more than a minimum amount of leadership.

EVIDENCE AND COMMENTARY ON TRANSFER OF LEADERSHIP

CONSISTENCY OF SUCCESSFUL LEADERSHIP AND SIMILARITY OF OLD AND NEW SITUATIONS

Most available evidence concerns the member who was successful earlier as a leader in a previous situational test without regard to his effectiveness. The evidence can be arranged to show that the more the new situation is actually similar to the old situation (or closer in time and place) the more the earlier-successful leader will be successful in the new situation. No empirical support has been found for the many other deductions concerning the transfer of attempted, successful, and effective leadership as a function of the perceived and actual similarities between an old and new situation. However, we have noted in Chapter 6 the high consistency in repeated assessments of attempted leadership in the same type of situation.

LABORATORY STUDIES. Bass and Norton (*89*) reported a correlation of .90 between successful leadership displayed by members of leaderless group discussions held a week apart. The composition of the groups and the problems discussed were the same. When one discussion was an examination, and the other not, the correlation was .86 (Bass [*64*]). The correlation dropped to .75 when two members of each group of seven were coached between test and retest situations. Bell (*95*) and French (*109*) reported a correlation of .75 when the composition of the membership was changed from week to week. A similar correlation of .72 was obtained when new groups were assembled containing either more or less of the earlier most successful leaders (Bass [*60*]). Arbous and Maree (*29*) obtained a median correlation of .67 between the extent to which administrative candidates displayed successful leadership when appointed discussion leaders and the extent to which they displayed successful leadership in initially leaderless discussions. When, in addition to changing the composition of the membership, the type of discussion problem was varied systematically, the correlation in consistency of success was reduced to .58 (Bass and Coates [*77*]).

When, in addition to changing group composition, a year intervened instead of a week between test and retest, and the status of members was differentially altered, the consistency dropped to .53 (Bass and Coates [*78*]). Finally, when the problem changed from a verbal to a mechanical or intellectual one, and several months intervened between one situation and the next, the consistency with which members displayed successful leadership reduced to .39 (Carter, Haythorn, and Carter [*197*]). For this last study, corresponding correlations of .62 and .78 were obtained for the same subjects when performance in discussion was compared with performance in group problem-solving.

OTHER EVIDENCE. An examination of situational test data collected in the screening of OSS candidates (OSS [*791*]) supports the same proposition. The correlation of leadership ratings of other situational test performances with rated performance in leaderless discussions dropped as the other tests became more dissimilar from free discussions. The correlation was .56 with leadership displayed in a debate, .48 with leadership in a personal interview, .47 with leadership in solving a problem of crossing a brook, and .30 with leadership in coöperatively constructing a giant toy.

Some other types of evidence are available also. Levi (*652*) found a correlation of .19 in leadership activity of students in elementary school and these same students in high school. But the correlation was .52 when their leadership performance in junior high school was compared with performance in the high school. Again, Sterling and Rosenthal (*984*) reported that as the group cycles through several phases of activity the same leader comes forward as similar phases reoccur.

CONSISTENCY OF ATTEMPTED LEADERSHIP AND SIMILARITY OF OLD AND NEW SITUATIONS

In the various initially leaderless situations, attempted leadership correlated between .65 and .96 with rated success as a leader (Bass [*64*]). Therefore, it is probable that if attempted leadership in a new situation had been examined as a function of success in an old situation, the correlation would have increased again with increasing similarity between the old and new situations. Hemphill, Pepinsky, *et al.* (*502*) did find an average correlation of .45 between assessments of

attempted leadership in four different tasks: reasoning, instruction, assembly, and strategy.

GENERALITY OF TRANSFER

Despite changing situations, certain consistent differences, such as verbal facility among individuals, continue to foster ability to solve the group's problems, particularly its interaction problems, which it is assumed change less from one situation to the next than do the task difficulties of the group. Unfortunately, there does not seem to be a single generalized aptitude, a "social intelligence," related to success in solving interaction problems. At least, we have not been able to develop a satisfactory measure of "social intelligence" per se (Thorndike and Stein [*1036*]).

Some generality is also promoted by the consistent differences among individuals in such aptitudes as general intelligence that enable those generally higher in intelligence to cope better with the task difficulties facing the group, despite the variations in task that occur from one group to another. Drake (*282*) and Raino (*845*) have emphasized this argument.

Still another source of generality was mentioned by Cowley (*245*) and emphasized by Bird (*130*). An individual's value as a person is likely to generalize across situations whether warranted or not. The generally esteemed person will be successful in the new situation, although not necessarily effective.

Follower behavior may also generalize, promoting the generality of transfer. Thus, Schein (*909*) had subjects learn to imitate a model in order to obtain a reward. The imitative response was made in a new situation without continued reinforcement.

EVIDENCE OF GENERALITY. As early as 1904, Terman (*1020*) reported an experimental verification of the consistency of leadership behavior in school children from one problem to the next. Feldman (*313*) described a study of supervisory effectiveness illustrating the generality of the phenomenon. Supervisors of 22 above-average sections of insurance clerks were interchanged with supervisors of below-average sections. The order of merit of the supervisors remained practically the same. Many of the differences among leaders were associated with the leader—not the group he led. Supervisors were then shifted by chance. Again, the relative order of productivity of the

groups led was a function of who led the groups. Page (*800*) found first-year leadership rank at West Point to correlate .67 with fourth-year leadership rank. Again, among 200 high school girls, half of whom were leaders and half nonleaders, Courtenay (*242*) found the leaders to show greater postschool achievement and community activity. Blake, Mouton, and Fruchter (*125*) reported that leadership, contribution to group decisions, and dominance as rated by different observers in different situations yield consistent individual differences among ratees despite the variation in situation and group composition. They also noted that, as task and group were altered, self-ratings and ratings of others were most consistent when concerned with leadership and interest. They were less consistent when concerned with the effectiveness and satisfaction of others.

Washburn (*1087*) found that observed behavior of children in a new social situation is characteristic of their behavior in old situations. Borgatta, Couch, and Bales (*152*) observed that new groups were more effective if they contained "great men" identified in old groups for their ability, assertiveness, and social success. The "great men" continued to be influential in the new groups. Highly esteemed, active, able persons continue to succeed as leaders in groups of different membership faced with similar tasks. Flanagan, Levy, *et al.* (*338*) reported correlations ranging from .16 to .32 among infantry squads placed in a variety of initially leaderless situational tests involving emergencies and the management of small groups. Similar results were obtained when the members were in turn designated leaders. Jackson (*563*) found that foremen receive approximately the same ratings on ability when transferred from one work group to another where approximately the same type of skill is required for successful performance in both groups.

AN APPLICATION. The fact that there is some generality of leadership potential can be applied to personnel problems. The group situational test provides a sample of group behavior similar to the real-life behaviors for which predictions are to be made. Individuals who emerge as successful leaders on situational tests are expected to attempt and be successful leaders in similar "real-life" situations.

Table 3 summarizes some of the results obtained with one type of situational test, the leaderless group discussion.

TABLE 3. *Correlations Between Ratings of Successful Performance in Initially Leaderless Discussions and Successful Performance as a Leader in "Real Life"*

Investigator(s)	Subjects	Correlations	Measure of Successful Leadership in "Real Life"
Arbous and Maree (*29*)	Administrative trainees	.45, .47, .36	Supervisor's opinions one year after of capacity for administrative work.
Bass and Coates (*78*)	ROTC cadets	.51, .68	Ratings of leadership potential six months after test by supervisors.
		.49	Ratings of leadership potential based on summer camp performance.
		.37	Ratings by peers of leadership potential.
		.32	Ratings by peers of likelihood to initiate structure and interaction as an officer.
		—.25	Ratings by peers of likelihood of being considerate of others as an officer.
Bass and White (*91*)	Fraternity members	.44	Ratings by peers of leadership potential in fraternity.
Bass *et al.* (*95*)	Sorority members	.39	Ratings by peers of leadership potential in sorority.
		.36	Amount of leadership activity outside sorority per semester.
		.10	Amount of sorority leadership activity per semester.
Carter, Haythorn, *et al.* (*198*)	NROTC cadets	.46	Superiors' ratings of performance on summer cruise.
Mandell (*710*)	Foremen in Federal shipyards	.36, .21	Ratings by superiors of success as foremen.
Vernon (*1076*)	Civil service administrators	.36	Ratings of success by supervisors as civil service administrators.
Wurster and Bass (*1143*)	Fraternity pledges	.47	Ratings by peers six months later of leadership potential.

Adapted from Bass (*64*).

Shown are the correlations of performance during the test situation with various appraisals of leadership performance in real-life situations. The results strongly support the existence of some generality and transferability of leadership behavior. Another type of supporting evidence mentioned earlier is the correlations found between success as a leader in discussions and in other types of situational tests, such as construction tests and personal interviews.

EVIDENCE OF SPECIFICITY. The evidence is by no means all in favor of some generality of leadership potential. Some empirical data suggest a high degree of specificity requiring the need to consider, as we have done, the effects of similarity of old and new situations and the experiences and expectations of the members. Unfortunately, the evidence does not relate directly to the effects of similarity, past experiences, or member expectations, but merely is indicative of the existence of some specificity of leadership potential.

Clem and Dodge (*225*) found high school leaders more active and successful professionally after graduation, while a random group of students exhibited more community leadership in their postschool careers. In the same way, little consistency in rated effectiveness as a leader by superiors in OCS and in combat was observed by Garrett and Ligon (*385*).

NEGATIVE TRANSFER EFFECTS

Many observers have commented on how earlier success in an old situation fixes the behavior of the leader, making him less effective in a new, different situation requiring a new approach to problems. Unfortunately, no experimental data have been found. Pearse, Worthington, and Flaherty (*811*), for example, direct attention to the negative transfer involved as the engineer is promoted into higher administrative levels. He has earlier been successful for his emphasis on exactness, efficiency, and always being right. As a higher-level administrator, more often dealing with interaction problems as well as task difficulties, such insistence on exact solutions is likely to be detrimental to leadership effectiveness. Bogardus (*141*) suggests that a highly esteemed leader may be called to lead in so many situations that his efforts are dissipated. A group also may be impaired if it contains a member or members of high reputation based on earlier performance, which reputation remains, although the members' abilities, upon which it was

based, have declined with the aging of these members. Or if new forms of training are demanded by new challenges facing the group and only the younger, less esteemed members receive this training, negative transfer effects again are likely. Fishman (*336*) argues that decision-making in business and government are fundamentally different, refuting the idea that the business executive is most qualified to administer government agencies. According to Merton (*740*), bureaucrats commonly are likely to exhibit the effects of what we have labeled negative transfer. In general, he declares, one adopts measures as a leader in keeping with his past training, and under new conditions, not recognized as significantly different, the very soundness of the training may lead to the adoption of wrong procedures. Furthermore, success at the day-to-day routine of the bureaucrat may make him unable to change or see the need to change when the conditions under which the bureaucracy was organized are changed. Toynbee (*1052*) presents several types of historical examples of negative transfer. In each type, the society in question continued to follow leadership in response to new situations which had been successful earlier. Societies such as the Assyrian exhibited suicidal militarism. Their leaders continued previously successful aggression on their neighbors, ultimately exhausting their own nation in the process. Similarly, the intoxication of victory, such as occurred to the French in 1793–1795, led to an overstepping of gains by French leadership and eventual failure. Earlier successful institutions may inhibit the correct response to a new situation. The earlier-effective Greek city-states could not unify when a larger unit was needed to maintain security. Earlier-successful techniques may interfere with changes necessary to handle new situations. Military leaders often let the enemy leadership—without any previously successful techniques—make the next innovation. The Greek phalanx was succeeded by the Roman legion, which, in turn, succumbed to the Parthian cataphract.

DEVELOPING LEADERSHIP POTENTIAL DURING CHILDHOOD AND ADOLESCENCE

Preceding theorems suggest that earlier effectiveness as a leader promotes present success as a leader, particularly if the present situations are actually similar to the past and are seen as similar. In the

same way, previous success as a leader promotes present attempts to lead. Even when the earlier experiences are different, a number of factors promote the generalization of some amount of leadership behavior to new situations. The study of the effects of childhood and adolescent experiences on adult tendencies provides additional empirical corroboration of these theorems. In turn, the theorems promote understanding of the significance of childhood and adolescent experience in the development of leadership potential. The significance of childhood experience in adult social interaction is emphasized by many commentators and the proposition has indirect empirical support. Thus, Wittenberg (*1133*) suggested that the individual relives his primary family group experiences in any other group to which he belongs. Piaget (*822*) noted that the rules about group behavior (the commonly accepted ways or the norms of interacting) depend on the ability to take into account other children in one's childhood actions. Again, Burgess and Cottrell (*172*) remarked that childhood relations condition adult success in marriage—certainly a problem in interaction. In a related comment, Meerlo (*736*) declared that the child-father relations often influence the child's future attitudes toward leaders.

The forecasting accuracy of the biographical information blank suggests the significance of reported childhood and adolescent experiences on adult success on leadership positions in business, industry, and the armed forces. The armed forces continuously have found in specially developed and scored biographical check lists, one of their most useful predictors of subsequent success in identifying potentially successful officers or candidates for officer training. Similarly, in business, one of the most consistently valid instruments for identifying potentially successful salesmen—a job usually requiring leadership potential—has been specially scored application blanks covering the past history of the applicant. For example, in one developed by the author and found to discriminate between subsequent successes and failures in selling, items proving significant discriminators included whether the applicant had been raised by one or both parents and which subjects were preferred in high school.

The consistency from childhood to adulthood of intelligence and various personality traits suggests that some consistency will be found in early leadership tendencies and adult leadership potential. For example, Cox's (*247*) analyses of the biographies of 300 outstanding military,

religious, and political leaders found traits of behavior most frequent in the childhood of these men, such as desire to excel, intelligence, insight, self-esteem, forcefulness, and so forth, usually related to leadership, as was demonstrated in Chapter 9.

AGE CHANGES IN LEADERSHIP

According to Mey (*742*) the emerging leader can be detected in the European primary school at an early age. At the beginning, leadership is attempted to satisfy the attempter's own desire to influence others. Such emergent leaders tend to be tyrants or stimulators. Later, attempts to organize become more common. Consistency in attempts and successful leadership increase, while rivalry among would be leaders decreases. Sociometric studies indirectly support this contention, finding older boys tend to be more consistent than younger boys in their evaluation of each other (Newstetter, Feldstein, and Newcomb [*785*]). Toki (*1044*) observed more differentiation or consistent differences in leader-follower behavior as children increase in age from 8 to 12. Increasing age also brings changes in the behavior making for success as a leader. Among 12-year-old girls, leaders are daring and humorous. Among 15-year-old girls, they are more successful if friendly, enthusiastic, and happy (Tryon [*1060*]). Marcia (*714*) also suggests that before 9 years of age what leadership is observed is more disorganized than that appearing later. Observations of the spontaneous play of nursery school children by a one-minute sampling procedure indicated the existence of two approaches to leading others: persuading others through ability to solve the group's problems, and coercing others by means of power (Parten [*804, 805, 806*]). A changing emphasis from coercion, despotism, and domination to a persuasive appeal to ideals was observed by Winkler-Hermaden (*1128*) among European adolescents. Pigors (*823*) also points to a change in leadership occurring with maturation. Coercing others—dominating or forcing others to shift in the direction of the coercive leader's desires—appears earlier than what we call persuasive leadership—guidance of others toward a common goal. Pigors questions whether there is any relation between exhibiting coercive leadership at an early age and persuasive leadership potential as an adult. Indeed, he agrees with Marcia that active leadership behavior, as such, seldom appears in groups before the age of 9 or 10.

DEVELOPMENT OF PATTERNS OF INTERACTIONS WITH OTHERS

Longitudinal studies of leadership potential from early childhood into the adult years will be necessary to clarify the dynamics of the development and transfer of attempted and successful leadership, but the outline of cause-and-effect already seems distinct. These dynamics can be enumerated by tracing the development of patterns of interactions with others as a function of various childhood and adolescent factors.

THE EARLY SIGNIFICANCE OF THE MOTHER. The mother very quickly becomes a secondary reinforcing agent for the infant's comfort. Thus, if she provides for satisfaction of the baby's needs, security and a sense of well-being tend to develop. On the other hand, rigidity, tenseness, or rejection by the mother soon yield tension and anxiety in the child's social relations. The child's attitudes toward authority may be affected by the extent of discipline imposed on him, which he lacks the physiological capacity to adhere to. The mother as a source of interaction experience continues to play a dominant role. For example, Bishop (*131*) noted that when interacting with a neutral adult, children tend to transfer to the new stimulating situation the pattern of interaction they have developed with their mothers. If their mothers were directive, interfering, and critical, the children tended to be inhibited, reluctant, or noncoöperative in their interactions with others. Some adults never grow out of this early pattern, transferring to their adult interactions the infant-mother relationships. "Tied to their mother's apron strings," they tend to be inhibited, unable to attempt or succeed at leadership.

TRANSFER OF NEGATIVISTIC BEHAVIOR. Negativism and rebellion against authority, characteristic patterns of interaction with parents of children emerging from babyhood, often turn into aggressive behavior expressed in fighting, threatening, and boasting. The child soon learns to transfer his aggression and rebellion against parent and teacher toward other children, or to dissipate such feelings via the escapist, phantasy life of television, radio, movies, and comics. The normal, maturing child comes to accept parental and school control and even to show a fair degree of coöperation with his family and teacher (Murphy [*776*]). Some extremely immature adults never make this change in behavior

tendencies; they prove unable as adults to work with others effectively or to lead or follow others successfully.

FAMILY FACTORS INFLUENCING DEVELOPING INTERACTION TENDENCIES

Differences in development among children in their habitual ways of interacting are influenced by differences in interaction possibilities within their families. Influential family factors include order of birth, sibling relationships, home setting, parental ambitions, parental attitudes and behavior toward the child.

BIRTH ORDER. The importance of birth order has probably been overestimated. However, it has some basis in fact. Several studies indicate that intelligence, an aptitude related to leadership potential, increases with order of birth in the family. The intelligence of the first-born is slightly less than that of the youngest child of the family. The difference, although slight, has been verified on the basis of averages from samples of each of several thousand siblings. As compared with their siblings, the oldest child in the family has, in various studies, been reported more socially maladjusted, less persistent, more conservative, less dominant, less aggressive, less self-confident, less inclined toward leadership, more easily influenced by suggestion, more seclusive, and more introverted (Hurlock [*555*]).

Some reasons for the above social behavior in oldest children may be the inexperience of the parents with their first-born child, the need for the oldest child to adjust from an "only-child" family to a family where attention toward children must be divided (Goodenough and Leahy [*422*]), and the probably lower financial and marital security existing during the infancy of the first-born child.

In comparison with their siblings, youngest children have been reported more disobedient, more inclined toward school problems, less quarrelsome with siblings, less inclined toward fears, more persistent, more likely to be pampered and helped when help is no longer necessary as well as disregarded when family or personal decisions are to be made. The "baby" of the family probably carries on his distinct role longer and later in life than does the rest of the family (Hurlock [*555*]).

All other things being equal, we expect the younger siblings to attempt more leadership as an adult than the older siblings to some slight extent.

No doubt, the effect of brothers and sisters on a child will depend on how much older they are, the sex of the child, and whether parents play favorites.

THE ONLY CHILD. Although popular opinion ascribes to the only child many undesirable behavior and personality characteristics, such as being spoiled, self-centered, withdrawn, sensitive, nervous, over-dependent, and unpopular, large sample studies indicate that whatever undesirable tendencies may be peculiar to an only child probably can be accounted for by his lack of opportunity to interact with other children (Hurlock [*555*]). If this one factor can be remedied by finding steady, close playmates, or by enrollment in nursery school, it is probable that any differences in leadership potential between only children and those with brothers and sisters will disappear.

SIZE OF FAMILY. Some optimum number of siblings may exist providing maximum experiences producing tendencies to interact successfully with others. Maller (*709*) found that the tendency of a child to work in a group for a group goal rather than alone for an individual prize is greatest among children with three or four siblings and is less among children of smaller or larger families. Coöperativeness is rated highest among these children at the optimum family size, but persistence was greatest among children from the largest families. Since size of family is negatively correlated with social status of the family and average intelligence of the children, the observed effects no doubt may be partly a result of socioeconomic status and intelligence.

PARENTAL ATTITUDES AND BEHAVIOR: COMMENTARY. Parental-child relations vary greatly among families (Baldwin, Kalhorn, and Breese [*45*]). The lives of Jane Addams, Champ Clark, Clara Barton, the Mayo Brothers, Robert Browning, William E. Gladstone, Robert E. Lee, Woodrow Wilson, Benjamin Franklin, and George Washington are among the many of historical leaders cited to illustrate the significance of either a mother or father in determining the career of the future leader (Bogardus [*142*]). Home environment is most significant in determining whether a child, and the future adult, will exhibit initiative; resourcefulness; self-reliance; and the motivation to interact with others, to coöperate, and be at ease with others; or, on the contrary, disinclination to interact with others, shyness, inability to persist or accept responsibility, and failure to succeed if leadership is attempted. Numerous comments by investigators and reviewers such as

Hurlock (*555*) and Champney (*213*) support the argument that if parents give a child opportunities to attempt and succeed in making decisions commensurate with the child's ability at the time to cope with the problems faced, such a child is more likely to transfer these successful responses to his activities with other children, to school, and to adolescent and adult situations in later life. The child is more likely to be and to become resourceful, self-reliant, coöperative, at ease in groups, thus facilitating his potential to be a successful leader. When the child has freedom (not license) to choose, decide, originate, reject at a level of problem difficulty, when he has some reasonable likelihood of success and effectiveness, he will be experiencing reinforcements likely to strengthen his tendency to attempt and succeed as a leader in subsequent problem situations.

The development of leadership potential will be favored by parental concern with providing stimulating opportunities to learn when reinforcements are positive in terms of encouragement, approval, acceptance, and facilitation; when the child is not forced to try to cope with problems beyond his current level of maturation; and when the interactions he experiences with parents and other members of the family are satisfying—harmonious, relaxed, pleasant, friendly, and tolerant.

On the other hand, a child under other parental treatment is apt to develop behavior patterns as a child likely to be still present in later life, interfering with his tendency to attempt or succeed as a leader. For example, parents who tend to dominate their children, who restrain the child's efforts to solve some of his own problems, who demand obedience before everything else, may create honest, cautious, and polite offspring, but offspring whose potential to lead is reduced by shyness, docility, self-consciousness, oversensitivity to criticism, and conformity or submissiveness.

Parents who neglect rather than stimulate their children with new challenges, parents who ignore their children by nonchalance, inertness, unconcern, create a pattern of behaviors in children again likely to interfere with their leadership potential (except possibly in an antisocial group such as a group of delinquents). Such children often exhibit symptoms like stealing, lying, cruelty, and other attention-getting behavior. Rejected children are often distrustful. They are strongly motivated to seek praise; feel persecuted and indulge in self-pity; and are subject to enuresis, nail-biting, and feeding problems.

Overprotective, overindulgent parents are also likely to inhibit the development of leadership potential in their offspring by denying their children opportunities to gain experience in handling problems commensurate with their maturing abilities. Such children may exhibit, as adults, irresponsibility, carelessness, overconfidence, and other characteristics likely to interfere with their success as leaders. Experiences of success and failure, promoting the learning of social skills, of what can and cannot be done in most groups, are missed by such children.

Other home environments calculated to reduce future leadership potential include homes where the child is typically blamed, discouraged, and disapproved; or where the child is pushed too rapidly into problems which he will almost automatically fail to solve because he has not reached the maturity to cope with them at the time; or where the pattern of relations among the family members observed by the child is erratic, discordant, tense, neurotic, and unpleasant. Here imitation of adult models may produce habits of interaction interfering with future success as a leader. Pigors (*826*) suggests that domineering children, children likely to attempt leadership among their peers although less likely to succeed in attracting and maintaining a following, copy the behavior of adult models. Mowrer (*767*) offers a similar opinion that children seem to react to an autocratic home or school either by a surrender of initiative and a life-long seeking after dependency, or a struggle, without reference to effectiveness, to become dominators themselves.

Thus, the future leaders (ignoring situational considerations) are likely to come from homes where they have been given opportunities to practice problem-solving, particularly interaction problem-solving; from homes where they have been stimulated and not left to their own devices; from homes where they have been treated as a function of their level of maturity rather than babied or pushed too rapidly; from organized harmonious homes emphasizing positive inventives.

PARENTAL ATTITUDES AND BEHAVIOR: EVIDENCE. Most empirical evidence supporting these views relates present home life with present behavior of the child in school or other groups. For example, compared to others, children from homes where the children participate in decisions were found by Baldwin (*44*) to be more active, socially outgoing, intelligent, curious, original, constructive, and domineering. Meyer (*743*) concluded that sociability and coöperativeness were greater when

parents were clear and consistent, explained decisions to their children, offered opportunities for decision-making, had rapport with their children, and better understood their children's problems.

Conflicting demands by the mother and father were found most likely to promote behavior in the children detrimental to the children's effective and successful interaction with others. For example, Meyers (*744*) found that the most nervous behavior in children occurs when parents issue conflicting negative commands. Disobedience is greatest when parents conflict in positive demands.

Anderson (*23*) provides data suggesting the significance of parents' leadership behavior as a model for their children. Again, socioeconomic status is involved, but in a rural New York area, Anderson found that the social participation of an individual is a "family trait." If father participates, so does mother. If both participate, children usually do also.

Comparison of children reared in orphanages with children raised by parents also is suggestive of the importance of parental interaction or lack of it. Public nursery school children were found by Anderson (*19, 20*) to interact more with others, to initiate and attempt more leadership, than children from a nursery in an orphanage.

An unpublished attempt mentioned by Bass (*64*) to correlate childhood experience with success as an adult leader failed to reveal any relationship. College students rated the extent each of their parents had been considerate of them when they were children and the extent the parents initiated interactions with them; then, each student's success as a leader in an initially leaderless discussion was correlated with his ratings of his parents' behavior. But no significant correlations emerged.

ADOLESCENCE: THE PROVING GROUND

Childhood is a period during which a stable set of patterns of interaction are learned with a relatively small number of other interactors among family and close friends. Adolescence affords a wider range of opportunities to attempt and succeed and be effective as a leader. Parental veto as well as parental protection is lessened. Practice can be obtained in educational, vocational, and social decision-making critically affecting oneself and others. Adolescence brings two kinds of problems to be solved: relations with the opposite sex and emancipa-

tion from home. Achieving success and effectiveness in handling these problems promotes further the leadership potential of the future adult by making him ready and able to make critical decisions affecting himself and his peers.

Reviews, commentaries, and surveys by Schnell (*913*), Blos (*138*), Cole (*231*), Fleming (*346*) Averill (*37*), Dennis (*266*), and Horrocks (*541*) provide a picture of this period, its problems and opportunities.

EXPERIENCES IN THE CROWD. Practice at leadership is afforded the developing youngster by his activities in his preadolescent gang and the adolescent crowd that follows.

Just prior to pubescence, the social unit is the gang, composed of members of the same sex, devoted to seeking excitement and adventure. Members of the opposite sex are disapproved of, and it is uncommon for boys and girls to play together. Success as a leader here for boys requires hard play, athletic and physical skills, and adventuresomeness. For girls, less rough demands must be met.

During pubescence, the social unit is the "crowd" or "clique," made up of members of both sexes, usually equal in number. The crowd is usually larger than its predecessor, the gang.

In addition to the change in size, there is also a change in the objective and in the importance of the friendship group. The purpose of the group now seems to be to provide normal social relationships between the sexes. Boy-girl friendships seem to be basic to it. There is a tendency for the crowd to compete with other crowds. The crowd sets the pattern of interactions of behavior for the early adolescent. The future successful leader experiences the opportunity of becoming accepted and earning approval from peers.

The crowd is important to the developing leader in a number of ways. It provides him with esteem value as a person in solving problems shared with the other members. It provides opportunities to interact with the opposite sex in a socially approved manner. It enables the individual to learn more about sex, leading others, following, coöperation, and competition. The social adjustments necessitated by the physiological changes of pubescence cannot be made with equal rapidity; and the crowd affects the transition between preadolescence, when the sexes remain apart, and late adolescence, when the sexes pair off in couples. The crowd also becomes a source of strength against

adult authority; in fact, adult standards of behavior do not matter much to the crowd. The early adolescent's behavior can only be understood in terms of the standards established by his particular crowd. Absence of a crowd in the life of a developing individual means lack of many friends, lack of opportunity to learn how to interact successfully with members of the opposite sex, lack of experience in attempting and succeeding in leading among peers.

ADJUSTING TO CHANGING SITUATIONAL DEMANDS. Adolescence affords the developing leader the opportunity of learning to change his behavior, his immediate interests, his skills as situational demands change in order to maintain success and effectiveness in his interactions with others. Individuals who fail to make these adjustments, or who lack the experiences facilitating these changes in behavior, are less likely as adults to attempt and exhibit success in leading others, all other things being equal.

Just prior to adolescence, the would-be boy leader must display physical skills, competence in group games, a sense of humor, friendliness, enthusiasm, ability to direct games, fearlessness, daring, aggressiveness, and boisterousness among other boys. Neatness and obedience to adults are considered signs of weakness in boys. Playing with girls is frowned upon. Girls, on the other hand, like boys to be quiet and neat —behavior they admire in themselves.

The onset of adolescence, with its accompanying crowds of mixed sexes, changes the demands made on a would-be leader by both boys and girls. Physical skill and athletic leadership are still deemed important in boys by boys, but now good grooming rather than mere tidiness is desired when in mixed company. Boys also begin admiring social ease and poise among other boys. Independence, self-reliance, and competitive abilities also become important. Girls tend to admire boys for similar qualities.

As boys continue on into adolescence, physical strength becomes less valued, although excellence in games still remains important. Poise, good grooming, and ability to be popular with girls make for esteem as a leader among adolescent boys.

A somewhat different developmental schedule obtains for girls. Prior to pubescence, the leader of girls needs to exhibit friendliness, quiet good humor, enthusiasm, graciousness, prettiness, tidiness, docility, demureness, and obedience. With the onset of heterosexual

behavior in early adolescence, aggressive good sportsmanship with both boys and girls, restlessness, and boisterousness become acceptable to their friends in place of the docility, demureness, and obedience demanded previously. Boy friends in this period admire a certain amount of masculinity in the girls. However, by middle adolescence girls are expected to behave in an adult manner following the standards of behavior established by society for adult women.

SKILLS TO BE LEARNED IN ADOLESCENCE. Certain social proficiencies, if learned during adolescence, often aid an individual's success in interacting with others as an adult. Failure, or lack of opportunity to develop these proficiences, may prove a handicap to the would-be adult leader. Social and athletic proficiencies, such as dancing, swimming, skiing, bridge, golf, tennis, and bowling, may make a difference in success as an adult leader, depending on the adult environment. Again, the social graces, etiquette, and grooming may prove significant. Finally, the experiences in club meetings, school informal classes, dates all afford opportunities to practice and transfer leadership and to see the success or failure of different attempts to lead.

DEVELOPMENTAL CONDITIONS LIKELY TO REDUCE LEADERSHIP POTENTIAL. Parents continue to play an important role in influencing the developing potential leader. Adolescence is a period of rapid and intense swings in fads; of likes and dislikes; of eagerness, impatience, and adventuresomeness. Parents may view these characteristics with too much distaste and reproof, failing to realize their normality in adolescents. Parents may directly block opportunity for a variety of interacting experiences by refusing to allow their children to date, stay out beyond a certain hour, use the family car, travel, and so forth.

Preoccupied or disinterested parents are another source of frustration to the adolescent. As we know, when we are placed in new learning situations, we learn the "right answers" more easily if we are given guidance and information early in the learning process. Adolescence is the period in which we are introduced to adult problems, social demands, vocational problems, and so forth. The adolescent with indifferent parents lacks the guidance for solving his many new problems; he will have few experiences of success, more of frustration. It is more likely that the adolescent whose parents provide no help in solving problems will turn to the streets, the movies, or the poolroom for guidance. The answers he gets there on how to behave in various

new social, educational, vocational, or sexual situations may engender conflicts with the law, the school, and the parents, serving to reduce his present and future social success and effectiveness.

The school may be an impediment to the developing leader. For example, if the same educative practices the school employed with the child are applied to the adolescent, the authoritative teacher-pupil relationship is retained. Uniform behavior is demanded and maintained with the same childish system of rewards and punishments. As a result the adolescent who retains a child relationship with his teacher may be rewarded rather than the one who is attempting, and properly so, to obtain a more equitable relationship with increased rights and responsibilities for himself.

Intellectual self-exploration and development may be discouraged to the detriment of the developing adolescent.

During periods of economic depression, although capable of holding a job, an adolescent may find it very difficult to obtain one. He may have left school to "get a job," but he may find his normal desire for economic independence thwarted by his inability to find employment. After making the crucial decision to leave school to get a job, he finds himself forced to return to the family for help and remain an adolescent economically for too long.

War periods do just the opposite. The older adolescent boy is forced to become an adult, leave home and school to serve in a "man's" army. A rigorous authoritarian regime is suddenly imposed upon him after he has become accustomed to living in a fairly democratic, civilian environment. The adolescent's growth toward social maturity is speeded up. Even if he is not ready for complete emancipation from home at 18, he is forced to make the break. Severe adjustment problems may arise.

What may prove to be particularly baffling to the fledgling trying to solve the problems facing himself and his peers is the lack of discriminability of standards and practice between children and adolescents on the one hand, and adults, on the other. Lack of discriminability in turn brings inconsistent reward and punishment for performance. Both parent and child may be confused concerning what is expected of each of them in their interactions with each other.

In many societies, there are ceremonials, differences in dress and ornamentation, which make visibly clear to all the child, adolescent, or

adult status of the individual. But uniformity in dress of all age groups is becoming most common in our society.

The adolescent in Western civilization is usually denied the carefree, irresponsible, protected status of a child, and on the other hand, the independence, responsibility, and rights of an adult. There are no prescriptions in our society concerning just how much of what kind of behavior will be allowed the adolescent, nor even any measure for saying when an individual is or is not an adolescent.

On the one hand, competitiveness in sports, school work, and business activities are inculcated in the adolescent. On the other hand, social coöperation is demanded. During adolescence, as in adult life, the desire for preëminence, recognition, and dominance is often in conflict with the desire to conform, to keep up with society's codes, and to avoid deviating too much from the standard ways of behaving.

There are often no distinct boundaries separating legal from illegal behavior and ethical from unethical practices. For example, the adolescent may be confused by a culture in which it is quite acceptable for colleges to pay "amateur" athletes to win for their "amateur" teams, but where it is illegal for the same "amateurs" to accept money from an outsider to avoid winning. Another example: organized gambling is illegal in 47 out of the 48 states, yet adolescents in many of these states grow up in an environment where some form of organized gambling flourishes openly and where it is common knowledge that the law enforcement officers are aiding the racketeers.

These cultural contradictions were expressed by R. S. Lynd (*686*) as conflicts in the "ground rules and goals of living" in the United States.

FURTHER DIFFERENCES IN OPPORTUNITIES. In Chapter 14, we will discuss in detail the effects of status or position in a group on success as a leader. However, here we can note the differences in opportunity to experience success as a leader afforded to children from different backgrounds and the resulting differences in their leadership potential as adults.

Orlans (*795*) has observed that many of our greatest presidents (Washington, Jefferson, the Roosevelts) have tended to come from an aristocratic class, from a background providing them with a great deal of opportunity to examine and evaluate new ideas. Few of our 34 presidents have come from the working class or farmer groups. Caesars,

Alexanders and Cromwells seldom arise from lower-class backgrounds; more often their parents had an important position in society. Spartacus was a rare individual among leaders. Even labor leaders in the United States until recently seldom came from working-class backgrounds. Within communist societies, the leaders of revolution and counter-revolution likewise seldom have been of proletarian background.

Minority group members are under handicap in their attempts to develop potential as leaders. How the social development of children of minority groups may be altered by their minority group membership is suggested by Murphy (*776*):

> The adult's ease in social groups of different kinds may be in part at least the result of the security or anxiety developed in relations with other children during the increasing group-minded years of school. Attitudes towards other races, religions, and economic groups will at the adult level have traces of early experiences of scapegoating, or of respect for individuals, fostered by family, school, and neighborhood atmospheres. The capacity to participate in democratic government, as compared with the need to achieve power and wield it fascistically will be the result of the whole complex social experience of the individual, of frustration or happiness in the family group, feelings of respected membership, or being excluded from school and neighborhood groups, as well as feelings of respect for the rights of others and sympathy for others which are experienced and fostered as the accepted mores of the group (p. 136).

Particular religious backgrounds may also make a difference. Often, parental religious conservatism is coupled with a rigidity in child-rearing likely to reduce the subsequent leadership potential of the children by inhibiting their opportunities to practice decision-making. Again, we may speculate that the child growing up as a "predestined member of the Elect," may be more likely as an adult leader to display a sense of certainty about himself and less doubt about the correctness of his attempts to lead, while the adult imbued from childhood with orthodoxy, rather than attempt new innovations, may be more prone to look for solutions to interaction problems within the authority of a prescribed set of beliefs.

In many stationary societies, opportunities to innovate are few and may have to be attempted in fear of condemnation for heresy or treason. The typical child in this environment seldom obtains the opportunity to practice leadership (Bogardus [*142*]).

CHAPTER 11

MANAGEMENT DEVELOPMENT

From Rusticus, I received the impression that my character required improvement and discipline; and from him I learned not to be led astray in sophistic emulation, . . . nor to deliver little hortatory orations, nor to do benevolent acts in order to make a display; . . . and to write my letters with simplicity . . . and to be readily reconciled to those who offended me by words, or who wronged me, as soon as they have shown a readiness to be reconciled; and to read carefully, and not to be satisfied with a superficial understanding of a book; nor hastily to give my assent to those who talk too much . . .

—MARCUS AURELIUS ANTONINUS, Meditations, (A.D. *161–180*)

The present chapter summarizes the various methods of supervisory and executive development now in use in terms of our earlier theoretical discourse. However, *The Meditations* reminds us that executive training is not new by its mention of Q. Junius Rusticus, a philosopher and a man of "practical good sense in public affairs," who was advisor to Marcus Aurelius after the latter's election to emperor in A.D. 161—a second century example of executive leadership training.

Our preceding discussions and arguments suggest a variety of ways to improve the likelihood of an individual as a person succeeding at leadership and effectively leading others. One aims to increase the person's ability to solve the problems of those he intends to lead. Another tries to provide opportunities to attempt leadership and to see whether

the attempts are successful and effective in modifying behavior where necessary to produce the desired effects. A third approach aims to increase the motivation of trainees to lead. The many methods of management development to be found in business, industry, government, and other large organizations, fall into these three categories.

Abilities include the widely generalizable aptitudes and the more restricted proficiencies. It is probable that for the same expenditure of effort, more increase in leadership potential is possible when the abilities needed to solve the group's problems are specific proficiencies. Changing the aptitudes of an adult is probably a much more difficult task. That is, it is probably easy to train intensively and produce improvements in, say, the proficiency in applying standard operating procedures to a limited number of problem situations as they occur. For example, it should be easy to teach the average person Robert's Rules of Order for solving problems of parliamentary procedure. Knowledge of these rules makes a person more likely to succeed in groups operating in parliamentary fashion. But it is relatively difficult to improve aptitudes for creating new approaches to problems in a variety of situations. Thus, it would be difficult to improve an adult's originality, per se—his adaptability or his ability to exhibit flexibility in a wide range of situations.

In general, we can only describe and categorize management development programs in order to cite how they follow assumptions about learning and interaction paralleling theorems derived in the preceding discussion, since few of these programs have been subjected to any rigorous evaluation. Our discussion will be limited to training leaders in business and industry, since most of the available information is from these organizations. We guess that these programs are more effective in increasing leadership potential when founded on propositions more closely approximating our theorems. For example, they are more likely to be effective if they provide opportunities for immediate and strong positive reinforcement for exhibiting successful and effective leadership, as desired. They are more effective if they provide reinforced experiences relevant to the future situations to which their training is to be transferred. Thus, job rotation, one method for providing opportunities to gain experience as a leader, will be efficient to the extent that the jobs held are similar to or require interlinking with the ultimate activities for which the executive is being trained. For example, if the ultimate position to be held is vice-president in charge of

sales, requiring a wide variety of knowledge of and abilities in production, sales, finance, research and personnel, then experiences in jobs in these different areas may have transfer value. On the other hand, if the ultimate job is to be that of chief of research and development, it may be wasteful and expensive to rotate such a trainee through finance and sales when the modest knowledge and problems of these areas required by the chief can be learned from reading, lectures, and personal contact. If the rotation program provides interviews with superiors who evaluate the program of the trainee, periodically providing positive reinforcement, the program will be more efficient than if trainees occupy one job after another without knowledge of their successes and failures in these positions. It may be no more necessary to rotate through the ten occupational areas you will eventually have to supervise than it is to learn how to lay eggs in order to raise chickens. The rotation process will be profitable to the extent that it provides opportunities to increase aptitudes and abilities to solve relevant problems, and to the extent that it provides opportunities for leadership success and effectiveness coupled with knowledge of such success and effectiveness.

NEED FOR TRAINING. The extent political units survive a leader who has molded the unit together depends on the degree to which he has trained his successors who must learn and accept his specific policies, understand the specific goals of the unit and the ways it is held together. On the one hand, Alexander the Great's attempt to weld East and West into a single political-cultural unit disintegrated soon after his untimely death, preventing the development of a successor from among his companions. Conversely, the stability and prosperity of the Roman Empire during the second century A.D. was partly due to the successful early adoption and preparation of a successor by each reigning Antonine emperor (Pigors [*826*]).

Modern American industry faces a similar problem at almost all administrative levels. Retirement, quitting, discharge, sickness, and death produce an almost 100 percent turnover in industrial executives in about ten years. Moreover, industrial expansion, decentralization, and technological advance are continually raising the number of executives needed (Fortune [*355*]). The industrial administrators of tomorrow are the accounting, law, and, particularly, engineering technicians of today. Lewisohn (*666*) estimated that 75 percent of engineering graduates

with little or no formal education in interpersonal relations eventually succeed to managerial positions. Thus, it is not surprising to find that among the goals of general education ranked as most important by 3800 Purdue University engineering alumni of the classes from 1911 to 1956 were learning to express one's thoughts effectively, acquiring the skills for constructive thinking, and learning how to get along with people. Among the "must" courses were speech, English, economics, and psychology (New York *Times* [27]).

EXPECTATIONS OF EXECUTIVE DEVELOPMENT PROGRAMS

Riegel (*863*) surveyed the experience of 50 American corporations' development programs to determine what was expected from the training.

Proficiency figured in the expectation that development programs should provide for better technical performance of executives. Programs should enable executives to be informed of scientific and technical progress. Aptitudes were involved in the expectation that executives would be made more versatile as a consequence of training and better able to coördinate the more specialized work of lower echelons. The profitability of reinforcement by periodic audit, another common feature of these programs, was expected to increase self-insight. Generally, therefore, the programs were expected to improve successful leadership and its effectiveness both with reference to interaction and to task. They were also expected to increase the motivation of executives by increasing understanding, interest, and attraction to the company.

The organization was expected to be made more effective as a whole through the executive development program by increasing the attractiveness of the firm to outsiders, by creating reserves of management talent, by increasing promotion from within the company, by permitting the delegation of duties to those who could perform them best, by improving organizational structure or formal relations between positions through periodic reviews of the men occupying the positions, and, in general, by promoting the long-term survival of the company.

The concentration of effort at the foreman level also gives a clue as to the aims of leadership training programs in industry. According to the Bureau of National Affairs' (*171*) survey of subjects covered in formal foreman training by 160 organizations, 96 percent discussed human relations; 90 percent, company personnel policies; 81 percent,

breaking in the new employee; 61 percent, company business policies; 58 percent, labor law rules; and 48 percent, business economics. These programs emphasize development of abilities and knowledge, particularly concerning interactions with subordinates.

EXECUTIVE DEVELOPMENT PLANS AND METHODS

A large number of plans and methods are employed in executive development varying in their efficacy and in their common elements. We shall try to consider briefly many of these in terms of what they are supposed to improve in a trainee and what assumptions about changing potential as a leader are involved in the design of the method. From Dooher and Marquis (*279*), Riegel (*863*), and other sources, a large collection of methods can readily be assembled. The individual may receive training on the job. He may be coached by his immediate superior. He may be given guided job experience on a planned basis. He may be trained as an understudy, "assistant to" a higher position. He may serve a formal management apprenticeship. He may rotate through a variety of jobs by planned transfers. He may receive counseling from professional consultants. He may be placed in a special trainee position or be given special project assignments in his own job.

The individual may be given additional education outside the company in formal organized programs, such as management conferences, institutes, seminars; technical and professional meetings; university executive development programs; graduate programs in business administration; university extension and night courses; correspondence courses; regular college work on leave from the job; and in "sensitive" workshops, panels, adult education classes, and forums.

Individual development may take the form of participation in a variety of activities outside the plant, many affording an opportunity to lead, as in business, trade, and professional associations; civic projects; or planned visits to other plants.

Planned programs of study may also serve to reinforce abilities to assimilate and disseminate technical and company information. The trainee may have a planned reading program off the job. He may engage in the study of company manuals, records and reports. He may learn how to prepare reports, letters, directives, and procedures. He may practice attempting to influence others in oral presentations to

business, technical, or professional groups, and by teaching opportunities inside and outside the company.

Many programs include interviews of the trainees with their superiors after they have evaluated the trainee's performance.

A variety of group training methods are also used. Multiple management or consultative management involves the creation of junior management committees or boards with various functions and duties. In-line staff meetings, interdepartmental meetings, and special group projects may also be used for training.

Widely used are such company training classes as conferences of selected groups; supervisory courses; skills training classes in planning, organizing, report writing; conference leadership and meeting skills; and the syndicate system of special research and study groups.

In many of these programs the use of role playing is often found.

DEVELOPING LEADERSHIP POTENTIAL ON THE JOB

A variety of plans for developing executives involve providing suitable job opportunities to experience success (or failure) as a leader to promote improvement in performance. These range from coaching successors to multiple management plans.

COACHING OR TRAINING SUCCESSORS. It is estimated that 80 percent of all management training is man-to-man coaching on the job. The coach may give his subordinate opportunities to initiate, suggest, and solve problems by asking subordinates for solutions rather than providing solutions himself. Then the attempts of subordinates can be evaluated by coach and subordinate. Similarly, the superior-coach may ask the subordinate to search out the answers to questions, analyzing the situation-solving problems. Third, the coach can give his subordinate the opportunity to lead others in the group, giving more responsibility and authority for leading as the subordinate progresses. A fourth technique allows the understudy to represent the coach "upstairs." Self-confidence and skill in interacting with high-status persons may be gained from an opportunity to interact with higher echelons (Anonymous [26]).

Allen (*11*) has outlined the specific functions to be coached: planning, organizing, coördinating, and motivating. The coach must delegate enough authority to his subordinate commensurate with the responsibilities assigned him. Instruction should be a two-way process in

which the trainee has an opportunity to take part in decisions affecting his operations, thereby developing understanding of the functions of management. Consultation of coach and trainee should be consistent, but the trainee should carry out all functions from planning to motivating. His performance in each phase should be evaluated and fed back to him.

Guided experience is a more specific coaching technique with emphasis on subtle direction by the coach of the trainee. The coach first examines his daily experience with his subordinate to find a major weakness demanding attention. For example, the subordinate may make too many snap judgments. Next, the coach examines the effects of the weakness and tries to list exhaustively all the possible causes for the failure in performance. Finally, the coach outlines remedial action, such as asking the subordinate to solve a problem; seeing whether the solution was reached only after the subordinate assembled all the pertinent facts; providing the subordinate with experience in having to defend his solution in the face of disagreement with others, etc. (Planty and Efferson [*829*]). This and other related techniques may suffer from the subordinate's feeling that he is a puppet whose behavior is being subtly manipulated by his superior. The consequent loss of self-esteem and sense of security in the subordinate may result in strong negative attitudes toward his superior and the organization. When the subordinate is promoted to a coach's position and learns the technique, he may always be concerned with whether his new superior is attempting to manipulate him.

JOB ROTATION. Planned experience on other jobs may be limited to opportunities for trainees to substitute temporarily for other men on leave or absent. But more formal is job rotation, the planned transfer of men into other types of jobs in their company. The methods engineer may shift to a job as a production supervisor and so forth (Riegel [*863*]). In some plans, trainees rotate from one leadership position to another, gaining experience in managing a variety of departments. In other plans, they rotate as assistant to department heads. Job rotation most directly attempts to exploit the assumed transfer value of learning to lead in one job to a new job. An executive is rotated through several lower-echelon leadership positions, in the particular hope that he will transfer the skills and knowledge gained in these positions to his

functioning in a higher-echelon job—a job as leader of all those who hold these lower-level leadership positions subsequently.

Many other values are expected that often, again, assume the likelihood of transfer. Sargent (*903*) has suggested that rotation provides a background of experience and familiarity with a variety of company operations. An executive can better evaluate his solutions to problems by appreciating their effect on the whole organization. The organization benefits from the periodic introduction of new job incumbents with new viewpoints. It increases the interaction potential of executives by making them more well known and familiar (see Chapter 17) with other employees, promoting their own leadership potential as well as organizational effectiveness. Motivation of rotatees is likely to be high because of the stimulation of new jobs and new challenges.

On the other hand, rotation has disadvantages. Customer relations may be impaired when it is difficult to continue to contact the same responsible person in a company. Some supervisors rotate; others do not because they have been evaluated as not likely to go further with the company. The effect on the nonrotators is not likely to be a satisfactory one. Running of departments may actually remain in the hands of these disgruntled nonrotators despite the nominal appointment of a new rotator each year as head. Conflicts of status are likely. Subordinate employees may find it difficult to establish any strong ties to supervisors who are constantly changing. Long-range projects within departments may be impossible, since no one knows whether they will be accepted by the next incumbent. The rotating head may never be accepted as a member of the department by the others. Departments may have to suffer periodic bad decisions reached by successive inexperienced rotating heads. A large waste of talent and energy may be involved in having, say, a maintenance engineering supervisor learn the entire job of personnel director, when ultimately only a few items about personnel are critical for his repertoire in higher echelons. Meanwhile, the personnel department may suffer during the learning process. Rotation may also involve geographical relocation detrimental to family life. It may be that the assets of rotation could be gained through other more carefully developed means without the expense and hardship imposed.

MANAGEMENT APPRENTICESHIP. The management apprenticeship of the General Electric Company described by Feigenbaum and Tulloch

(310) is a rotation program with planned movement to successively more advanced learning opportunities. Emphasis is placed on active participation by the trainee in decisions affecting his career. He has options in training assignments and ultimate career paths. He may organize and conduct group meetings, classes in management, and case study analyses in coöperation with other trainees.

Featured in the program is periodic feedback, counseling, "bull sessions" with members of the training staff. Emphasis is placed on strengthening friendly relations with line executives. At each stage of his "upward training spiral" the trainee gets practice in acting under responsibility for the consequences of his action. As early as possible, he is assigned supervisory responsibility to gain experience in leadership.

MULTIPLE MANAGEMENT

A Junior Board of Directors has been created by McCormack and Co. (Bell [*106*]). The Board is free to examine any information about company operations, finances, goals, and progress. When it reaches consensus on an issue it has decided to explore, it reports the decision to the Senior Board. Sociometric ratings of the members determine the six who will nominate the Junior Board for the next six months. Men are informed of their colleagues' opinions of them, based on six months of interaction as board members. This extensive evaluation by associates is apt to reinforce successful behavior and to promote attempts to change behavior when failure has resulted. "In a typical case, three men went off the board but in leaving they were told why they had proved deficient in the eyes of their colleagues. A man with high standing in initiative, for example, might learn that his eagerness had been accompanied by a brusqueness that caused him to be low man in Human Relations or Cooperation" (p. 110).

As will be noted in the next chapter, ratings by associates of esteem (buddy ratings) provide one of the most accurate predictions of future success as a leader. If the sources of low esteem are due to deep-rooted personality difficulties, the organization benefits from identifying the potential failure early in his career. If the low ratings are due to transitory or minor habits, lack of certain skills, or naïveté, the feedback from colleagues may promote a rapid removal of these deficiencies.

A Factory Board operates in the same way. It is composed of foremen and supervisors, rather than members of middle management, and tends

to center its attention on production problems. A corresponding Sales Board made up of top salesmen operates in similar fashion. The boards have submitted hundreds of unanimous decisions per year to the Senior Board, few of which have been rejected. Most of the present Senior Board is made up of former members of these junior boards. Aside from providing problem-solving preparation for top management and senior board membership, the junior boards provide a valuable immediate source of suggestion for the operation and maintenance of the company.

SPECIFIC TRAINING METHODS

Attempts are made to develop the aptitudes and proficiencies associated with successful industrial leadership in industry by a wide variety of techniques, including problem-solving meetings, conference leadership training, role-playing practice, and discussion of case histories. Even more specific skill developments may be tried by short courses in reading, writing, speaking, labor law, business procedures, and so forth. Our purpose here is to promote understanding of the rationale underlying these attempts rather than to discuss each in detail.

PROBLEM-SOLVING DISCUSSION AS LEADERSHIP TRAINING. This provides experience in coöperating with others in reaching decisions. It is a type of experience that should promote the potential leadership of the trainee by preparing him to use the group discussion as a means for reaching effective decisions (Allen [*11*]). As pointed out earlier, groups are likely to reach a more effective solution to a problem than the average member working alone, particularly when the members do not share misinformation about the problem initially and they tend to increase in agreement following interaction with each other. Moreover, as has been suggested, members are more likely to carry out a decision in which they have participated (e.g., Radke and Klisurich [*841*]). It would seem that a person gaining successful and rewarding experiences as a member of a problem-solving team would be more ready and able to lead future groups more successfully, since he would be more prone to himself initiate group decision-making, which, in turn, would result in more effective decisions and decisions more likely to be executed.

Maier (*704*) has shown the feasibility and efficacy of such training. He compared the performance of 176 trained industrial supervisors with 144 untrained ones. The supervisors with eight hours of training in

group decision-making were found more likely to bring about acceptance of change in their groups.

CASE HISTORY ANALYSIS. A popular training technique is to regularly assemble executives or supervisors to discuss case histories representing interaction or group task problems common to the jobs of the discussants. Discussion centers on isolating the causes of the problems, determining solutions, and examining the general applicability of the solutions to related situations, if any.

The training values are considered numerous. Such discussion provides experience in objective ways of thinking about common problems. The need to study issues in terms of cause and effect is emphasized. Trainees exchange and evaluate each other's solutions to such problems. They develop an awareness of the usual lack of adequacy of single, simple answers to complex problems (Riegel, [*863*]). Argyris (*31*) describes how "member-centered" discussion may bring about the more difficult but desired therapeutic changes.

But case history discussions may be overvalued. There is no guarantee they will not develop into the pooling of ignorance, particularly if members come together already sharing misinformation, prejudices, and blind spots. The critical elements in the problem may be consistently missed. Solutions may remain at a superficial level, permitting little transfer. Or, the approaches finally agreed upon by the group may be accepted intellectually but not emotionally. That is, trainees may readily verbalize their acceptance of reasons for solving the problems in a certain way, yet find themselves without the motivation to actually carry out such solutions when personally confronted with such problems.

ROLE PLAYING. "Acting out" solutions to problems without a script goes a step further in promoting transference from learning situations to leadership performance on the job. As Bradford and Lippitt (*160*) indicate, interpersonal skills may be hard to teach. Providing, in conference or lecture, verbal or intellectual reasons for behaving in a certain way without actually helping to produce the ability to behave in the desired way, may reduce rather than increase leadership success by resulting in frustration and anxiety.

Many values may accrue from role playing not afforded by other methods. The trainee can practice what he will eventually have to do. Role playing can be used as a diagnostic technique. The group discussion following the role playing can concentrate on examining specific

interactions that have been observed. Different ways of solving a problem can be tested by role players. Other trainees can gain vicarious experience in observing the success or failure of these attempts. Feedback of actual experience of success or failure of role players attempting to lead others can be complemented with the feedback of evaluations of observers. Standards can be set for handling specific situations (French [*367*]).

Role reversal is a useful adjunct. If a supervisor does not seem able to understand the view of a subordinate, he may be asked to play the role of a subordinate in the same situation while someone else plays supervisor. The supervisor in the reversed role may gain some insight into what is affecting the subordinate's behavior (Bradford and Lippitt [*160*]).

A CRITICAL FACTOR IN EXECUTIVE TRAINING

Many leadership training programs, such as those described by Canter (*191*), Katzell (*598*), Maier (*703*), Mold (*756*), and Vonachen *et al.* (*1080*), have stressed increasing the supervisor's knowledge, skills, and ability, especially with reference to problems of interaction among his subordinates, as one of the basic goals of training.

Canter (*191*) has shown that large gains in understanding psychological principles for success and effectiveness in supervising others can be made through supervisory training programs. Better insight into subordinates' attitudes also are possible to develop. But whether these gains will be reflected in more success and effectiveness as a leader on the job is another matter. Numerous commentators have emphasized the need to interest higher management in its leadership training programs for its lower-echelon executives by having top management take the courses first, by having it participate in designing, introducing and evaluating the training program (Mahler [*701*]). Fleishmann (*340*) showed that foremen given training in the value of exhibiting consideration as supervisors, were, after returning to their jobs, more likely to continue exhibiting considerate behavior, according to their associates, if the foremen indicated their superior expected such behavior from them. When foremen given the training returned to jobs with perceptions of a superior who did not expect such behavior, the foremen experienced conflict which revealed a greater discrepancy between what they said they should do and what they actually did do. All in all,

the main effects of training seemed to shift some trainees' behavior in one direction and some in another (compared to foremen given no training) rather than to produce changes in the same direction for all trainees (Harris and Fleishman [*480*]). In the same way Hariton (*478*) found that foremen training increased employee satisfaction when the foremen were encouraged by their superiors to use the principles learned in training. To promote this encouragement, all members of the organization may enter the same training program. But to permit freer participation, "diagonal" conferences have been described by H. L. Stow in which different echelons are represented in each training group but no one meets with his own boss. This same approach is followed in the "development groups" created to aid executives and supervisors to study behavior in groups by examining the problems arising from their own attempts to organize themselves during a one or two-week period in a "training laboratory" removed from the place of work.

PART V

COERCIVE AND PERMISSIVE LEADERSHIP

What are control and power?
How is personal power wielded?
How does power produce coercion?
What are some of the side effects of using power to coerce?
How does the permissive leader use his power, yet avoid the side effects?
Why shift decisions to the group?
How common is conformity?
What increases conformist tendencies?
How does attractiveness increase conformity?
What are some of the techniques of permissive leadership?
Why is permissive leadership likely to produce more effectiveness?
Is the opportunity for discussion or the opportunity for decision more important?
What are some limitations on the utility of permissive leadership?

CHAPTER 12

POWER AND COERCIVE LEADERSHIP

When the hare addressed a public meeting and claimed that all should have fair shares, the lions answered: A good speech, but it lacks claws and teeth such as we have.
—Aesop's Fables (ca. *600* B.C.)

Aesop's fable differentiates *persuasion* from *coercion*. While the hares, with ability, made a good speech, they did not have the power (in this case, the power to punish) of the lions.

As seen in the Aesop fable, the ancients were most cognizant of power as a source of leadership. Political scientists since Aristotle have centered attention on power and coercion, while sociologists, and particularly psychologists, have tended to focus on persuasive leadership dependent on ability (MacIver [*699*]).

Our thesis is, of course, that both power and ability, both persuasive and coercive leadership, belong in the overall study of the way we interact and influence each other.

An able person successfully persuades others to follow him because they expect that following his suggestions will result in solving the problems facing the group. A powerful person successfully coerces others to follow him because the power from his position, or his power as a person, makes others expect that he will reward them for compliance, or punish them for rejection. An able person can indirectly reinforce the

behavior of others. He can provide the cues aiding in their goal attainment. A powerful person can directly reinforce the behavior of others by granting or denying rewards or punishments for the others' behavior. These sources of influence were described by Bartlett (*59*), who observed that leaders in any complex social group on the one hand maintain their success because of the social prestige (the status) of their position or because of their personal capacity to impress and dominate; and, on the other, by virtue of personal capacity to persuade their followers.

The distinction between persuasion and coercion has also been well documented. Parten (*806*), observing the spontaneous play of nursery school children using one-minute sampling, found two types of leadership possible in the situation where all share the same status: persuasive leadership employing diplomatic, "artful" suggestion and leadership through personal power using brute force to dominate others. Similarly, Zillig (*1152*) observed the same two types of leader in the classroom: leaders who dominate and leaders who direct and guide.

CONTROL AND POWER

One member, *A*, has control over another member, *B*, if *A* has at his disposal potential rewards or punishments. This opportunity to dispense potential rewards gives *A* power over *B*, but only if *B* seeks such rewards; only if what *A* can dispense is rewarding or punishing to *B*. As noted in the introductory quotation to Chapter 14 from Pascal's *Discourses*, power comes from the "possession of things that men covet." If *B* is hungry and *A* has food, *A* has power over *B*. If *B* is satiated and *A* has food, *A* has control but not power over *B*.

Thus, *A* may control what *B* may want. On the other hand, *B* may have little motivation to gain what *A* can grant. If *B*'s motivation is strong to gain what *A* can give, *A* has power over *B*. For a given amount of control of *A* over *B*, the stronger *B*'s motivation, the greater *A*'s power.

The decline over the centuries in the religiosity of the Western world has brought a corresponding decline in the power of the clergy (Brown [*165*]). In most religions, the clergyman has some control over the layman attempting to secure religious goals. But he only has power to influence when religious goals, as such, still are strongly sought after.

When church-going becomes a means of satisfying needs to affiliate, to conform, and to maintain friendships, rather than to satisfy purely religious motives, the clergyman has far less power to influence various highly esteemed members of the congregation than he once had, although he still has the same control of religious goals.

RELATED COMMENTARY ON CONTROL AND POWER

Lee (*645*) defined control as the ability to supply or deprive the means of satisfying desires of others. Similarly, Bennett (*113*) described control as the extent a member monopolizes the supply of need satisfiers. Goldhamer and Shils (*416*) mentioned three manifestations of control: force, threat of force, and manipulation of cues habitually associated with threat, such as yelling "fire" in a theater. Krech and Crutchfield (*628*) listed among the functions of the leader that of "purveyor of rewards and punishments" (p. 419). Similarly, Roethlisberger (*877*) has pointed out, and Flieshman (*340*) has confirmed experimentally, that foremen try to act the way they believe their bosses want them to act. Again, McGregor (*695*) noted that *A* could lead *B* either by threats of hindrance or by promises of augmentation of *B*'s efforts.

Aristotle commented on the technique of ruling through power by keeping subordinates impoverished, dependent, and in want. On the other hand, Mencius opined that if a government is benevolent to the people, then the people will love all those above them and die for their superiors. And Mo-tse reasoned that order in society occurs when the administration "answers to the desires of the people." Power, according to Timascheff (*1039*) is basic to any form of social control. Among the primates, recognized control and power hierarchies based on love or fear of bodily injury can be discerned (Maslow [*723*]).

Control may be regarded as the ability to impose standards, limits, and boundaries on a group; the ability to indicate what is expected of others for reward or harm avoidance; and the ability to enforce such rules. The boundaries are likely to be areas of increasing threat, impenetrability, and viscosity, requiring judgment by those of low control concerning how far they can deviate without punishment. But those of low control may not be aware of the control being imposed on them (Timasheff [*1039*]).

Even the concept of God and his relations with man has always been

a matter of power and control either through fear or love. Commenting on this, Smith (*967*) declared, "God has too consistently stood with the aristocrats, for His leadership, like theirs, rested upon prestige and authority. Democracy . . . must discover or invent a new God who will be sympathetic with its aims. A democratic God might prove to be the noblest work of man" (pp. 188, 201).

PERSONAL POWER

Krech and Crutchfield (*628*) recognized the significance of the personal ability to grant or deny affection, love, consideration, sympathy, recognition, and the security of relations and attachments in understanding the phenomenon of leadership. Pointing out that the leader may become a "father figure," they commented:

> The leader serves as a perfect focus for the positive emotional feelings of the individual; he is the ideal object for identification, for transference, for feelings of submissiveness. Psychoanalytic theorists have stressed this exceedingly significant feature of the relationship of the leader to his followers, and there seems no doubt of the major role that it plays in accounting for the tremendous powers of certain leaders in special group circumstances. Roosevelt and Hitler undoubtedly served as compelling father figures for many of their followers (p. 421).

Leaders successful because of great personal power have been described as "charismatic," or endowed, according to their followers, with infallibility, wisdom, and a "touch of the supernatural." In our time, Lenin, Gandhi, Hitler, Father Divine, and Dr. Townsend, among others, have been thus idealized and worshipped (Lindesmith and Strauss [*671*], p. 494).

Turning to "father figures" who will satisfy all wants is part of modern man's effort to gain security. It is a pseudosolution satisfying the need for security as well as providing opportunity through identification for vicarious experience in the personal power granted the leader (Fromm [*378*]). The flight from indecision and responsibility results in grasping a simple solution—let the leader do it (Hook [*539*]).

Redl (*850*) has stressed the concept of the leader as a person in the center of a cluster of emotional ties. Again, Henry's (*509*) personality study of successful executives concluded that the successful executive develops personal attachments to his superior and tends to identify with

him. The superior is a symbol of potential achievement. In gangs of delinquents, the leader becomes the superego of the members, according to Deutschberger (*274*). By submitting to the leader, members are relieved of all personal responsibility for their antisocial activities.

Evidence that we seek the affection and support of those we hold to be personally powerful was furnished by Hurwitz, Zander, and Hymovitch (*556*). They continually reshuffled 48 professional personnel to form 32 6-man groups. The power to influence and the extent each member was liked after the first half-hour of interaction were assessed. Those of low esteem wanted most to be liked by those of high esteem more than they actually were liked.

MANIPULATING PERSONAL POWER. What are some of the penalties or sanctions that can be wielded by one with personal power? He can punish others by curtailing intimacy, becoming more distant, formal, cold, and businesslike. To admonish indirectly, he may show disapproval by gesture—raised eyebrows, disappointed look—or talk in generalities. He may use ridicule. This is common among children, but among adults it often is avoided because of its severe effects (Faris [*305*]).

In the modern industrial situation, the would-be successful and effective leader—usually the superior of the supervisor-subordinate pair—can most often exert control and power as a person by exhibiting consideration and concern for the welfare of others. Lawshe and Nagle (*637*) obtained a high positive correlation for a small sample of work groups between group productivity and employees' perceptions of how considerate their supervisor was. Similarly, Hemphill and Christner (*498*) found among B-29 air crews more of a tendency for increased friendship, willingness to go into combat with crewmates, and confidence in their crews when led by a considerate air crew commander. Again, Mayo and Lombard (*731*) found that absenteeism and turnover were lowest in those work centers in an aircraft factory where the lead man devoted much time to the personal problems of others, listening to irritations and frustrations of personal life permitting others opportunity to use him for catharsis.

POWER OF POSITION

More readily apparent is the fact that a member's power may be due to his position. Because of his position, the industrial leader may control

the granting or denying of important rewards to his subordinates through his potential to recommend them to higher-ups for pay increases and promotion. Such control brings power, as Pelz (*813*) showed. Pelz found that only those supervisors with influence with "higher-ups" exhibited behavior which made a difference in their subordinates' satisfactions. Supervisors without influence "upstairs"—although they tried—were much less likely to have effects on their subordinates. Supervisors with influence with "higher-ups" were much more likely to be able to obtain rewards for their men. Their power was greater and therefore what they did in their own group made more of a difference to their men.

AUTHORITY AND POWER

Authority is not power. "No amount of legal authority over the grizzly bears of British Columbia would enable you to get yourself obeyed by them out in the woods" (National Research Council [*781*], p. 366). Authority is the expectation of what can be done by a job occupant. In supervisor-subordinate relationships, control is expected in the supervisor's position along with authority, but often subordinates must have learned previously to associate reward and punishment with the supervisory position and its symbols of status and authority. An analysis of authority and power requires examining the attitudes we develop toward authority figures and symbols as well as the matter of the rules and regulations describing what we should expect of holders of positions of authority. This issue will be considered in a later, more detailed discussion of status in Chapter 14.

COÖPERATION AND POWER

Under coöperative conditions where two members, *A* and *B*, are working together toward the same goal, each exerts some control over the other. If *A* moves toward the goal, *B* may not have to carry out the same acts; *B* will attain rewards through *A*'s success. Conversely, *A* can be obstructive resulting in *B*'s failure to obtain his reward. *B* can help or hinder *A* in the same way (Deutsch [*268*]).

COERCIVE LEADERSHIP

. . . no one is afraid of Caesar himself, but he is afraid of death, loss of property, prison, disenfranchisement. Nor does anyone love Caesar himself,

unless in some way Caesar is a person of great merit; but we love wealth, a tribuneship, a praetorship, a consulship. When we love and hate and fear these things, it needs must be that those who control them are masters over us . . . That is how at a meeting of the Senate a man does not say what he thinks, while within his breast his judgment shouts loudly (Epictetus [*299*], p. 144).

In this quote from Epictetus, we see bases for control through position and effects of control on influencing behavior overtly, but not covertly. This is what we mean by coercive leadership. A person who is persuaded accepts or complies with the attempted leadership both publicly and privately. A person who is coerced accepts or complies publicly but not privately. For example, coercion can be examined by having members announce their decisions to all following interaction with other members. Then they can fill out secret ballots not to be seen by other members. The amount of coercion is reflected in the discrepancy between the open announcement and the secret ballot.

Coercion and persuasion can be derived conceptually from the more elementary notions of attempted and successful leadership. Persuasion occurs when attempts to lead are successful both publicly and privately. Coercion occurs when attempts to lead are successful publicly but not privately.

POWER AND COERCION

All leadership considered previously was persuasive; that is, members changed behavior, solutions, and goals to comply with a leader because of observing his earlier success and effectiveness. Coercive leadership arises for different reasons.

By definition, *A* controls *B* if *A* can manipulate the rewards and punishments of *B*. *A* has power over *B* if *B* is motivated to gain the rewards or avoid the punishments. Seeking reward and the avoidance of punishment, *B* will change his behavior in accordance with the demands of *A*. Therefore, the greater *A*'s power, the more successful is his leadership. Moreover, if *B* changes his behavior, say, from moving toward goal *b*, satisfying *B* intrinsically if attained, and moves toward goal *a* to comply with *A*'s order because *A* has power over *B* and rewards or does not punish *B* for such compliance, the successful leadership due to control is coercive. *A* has changed *B* by inhibiting *B*'s movement toward goal *b*. If *B* were asked his private personal preference, he

would select movement toward goal *b*. But, in the presence of *A*'s demands, he publicly or overtly moves toward goal *a*. B has been coerced by *A*. While experimental means may be developed to measure the inhibition of *B*, we usually can assess its occurrence from the discrepancy of *B*'s private opinion and *B*'s public behavior.

Thus, we conclude that leadership based on ability alone will be persuasive; leadership based on control alone will be coercive. Of course, an individual of high control may have the ability and learn formally or informally to depend on his ability and not his control.

RELATED THEORY AND EXPERIMENT

Many of the studies of leadership among animals are studies of the coercive effects of control and power. The feeding, social, and sexual behavior of a less powerful animal is modified, limited, or inhibited by the behavior of a more powerful one (Maslow [*721*]). The dominant animal gains satisfaction from his behavior by earning a greater share of rewards, and in other ways. The submissive animal escapes harm by submitting.

Simon (*956*) recognized the relation of coercion and power in terms similar to ours. In the typical administrative organization, where the higher-status superior can reward or punish the subordinate in a variety of ways, the subordinate "holds in abeyance his own critical faculties for choosing between alternatives and uses the formal criterion of the receipt of a command or signal as his basis for choice" (p. 126). Lee (*645*) agrees with Simon that industrial leadership must be coercive, since it is based on power. Simon notes five reasons for this effect. First, we develop expectations for obedience to symbols of higher status. Second, personality needs for security from "substitute fathers or mothers" may be in force. The superior can satisfy these needs. Third, the subordinate may share the same goals as the superior and perceive that blind obedience provides a means to the goals. Fourth, the subordinate is freed from taking responsibility for difficult decisions. The superior bears a burden for the subordinate. Fifth, and most simply, the superior may be able to materially reward or punish the subordinate.

A clear demonstration of the coercion resulting from power was reported by J. R. P. French and associates (Institute for Social Research [*560*]). In laboratory assignments, where supervisors could assess

monetary fines, subjects exhibited a much greater discrepancy between their public and private reactions than if no fines were possible.

FURTHER COMMENTARY ON POWER AND COERCION. "The extent to which an individual possesses control over the need satisfaction of others will largely determine the ease with which he can cause others to assist him in gaining his own goal objectives" (Bennett [*113*], p. 6). Bennett continues with the extreme view that expectations of reward and punishment are the primary means of influencing others. He also comments on the relativity of control. If you control powerful persons, you exert greater control than if you had the same control over persons of lesser power or control. Further, how much you control depends on the number of individuals whose need satisfactions can be manipulated, the number of satisfiers you can supply or deny, and the extent you can control these satisfiers. Wolman (*1137*) presents a similar argument supporting the view that leadership is primarily a function of the ability to satisfy needs.

While members follow those with power to avoid punishment or gain reward, Goldhamer and Shils (*416*) also point out that secondary reinforcement is involved. Habitual ways of accepting influence attempts cued by the power figure are maintained in the absence of immediate reward or threats. For example, the new army recruit may "sir" his officers to avoid punishment. Gradually, "sir" becomes habitual and may even be cued by authority figures in postmilitary civilian life as a consequence of stimulus generalization.

The power-coercion effect is used by Freeman (*362*) to account for the decay of organization and societies. Persons with common goals unite in a group to realize those goals. But in time the more economically powerful members gain control and direct the organization to their goals. The less powerful are coerced to work for goals detrimental to themselves. Dissent, withdrawal, and schism or breakdown of the organization follow. Similarly, in discussing political relations, Thorndike (*1031*) noted that the powerful are able to cause those over whom they have control to adopt their personal values. The protector or the ruler usually establishes the relation to be maintained between leaders and followers.

CONDITIONS CONDUCIVE TO COERCION. A variety of situational factors contribute to the occurrence of coercion—public acceptance but private rejection of leadership. Goode and Fowler (*419*) describe a

factory where workers produce under a high degree of coercion coupled with personal dissatisfaction because they have strong needs to remain in the work group: they are marginal, handicapped employees without skills, unable to get jobs elsewhere. More generally, during depressions or recessions, when unemployment is high, labor is more likely to be coerced by management. Conversely, when more jobs than workers are available in prosperous times, management is more likely to be coerced by labor. Another situation producing coercion arises when members are inhibited from any emotional release, overt conflict with others, or continuing disagreement because of custom or member preference for consensus at all costs (Riecken [*861*]). In traditional Japan, any member of a group was inhibited from challenging the "will of the group" as stated by the group leader. Overt disagreement was presented through fear of "loss of face" and unwillingness to offend. Decisions were always declared unanimous although members were in disagreement privately.

Festinger (*319*) generalizes this case by proposing that public compliance without private acceptance will occur if the person in question is restrained from leaving the situation and if there is a threat of punishment for noncompliance. However, persuasion (public and private acceptance) rather than coercion occurs according to Festinger when the person is strongly attracted to those attempting to lead him. As will be discussed in detail when the relation of esteem to leadership is considered, we suggest that coercion may occur under both conditions. If *A* is attracted to *B* because *B* is a source of affection, *A* may be coerced by *B* when the pair is faced with an intellectual problem so that *A* can continue to receive *B's* friendship. If *A* is attracted to *B* because *A* regards *B* as having great ability to solve intellectual problems, when the pair is faced with such a problem, *A* is likely to be persuaded by *B*. Whether coercion or persuasion occurs as a consequence of attraction to a group or to other members depends on the source of attractiveness.

INHIBITION THROUGH COERCION. Timasheff (*1039*), Hemphill (*496*), Gibb (*402*) and Tannenbaum (*1014*) have commented on the inhibitory effects of coercion resulting from leading through power. Hemphill notes that the success of a leadership act partly depends on the follower's perception of how much freedom he has to accept or reject it. Gibb points out that increased threat reduces or restricts mem-

bers from varying in carrying out the task expected of them. Leadership by threat, by use of power to punish, results in restrictions in member freedom to act. Tannenbaum lists the ways an industrial executive using his power over subordinates commonly restricts or inhibits their behavior:

1. He identifies the organizational goals.
2. He sets up criteria for evaluating alternative paths to the goals.
3. He rules out particular alternatives.
4. He limits general activities permitted subordinates.
5. He identifies the positions with control and power.
6. He strengthens responses by providing subordinates with additional information.
7. He sets deadlines to be met to avoid punishment or earn reward.

The subordinate in the industrial organization is coerced by sources in addition to his immediate superiors. He may have to accept publicly, yet reject privately, the dictates of buyers of the organization's products; contractual agreements with labor unions or industrial cartels; and demands of government, custom, and tradition.

GROUP CONTROL AND POWER

The group as a whole may coerce each and every member, for the group as a whole, if it has opportunities to make group decisions affecting each member and opportunities to reward or punish each member, can and does exert power and can and does coerce its constituents. And the more attractive is the group as a source of reward, the more can stated majority opinion, consensus, group decision, or the perceived group opinion coercively influence its members. Thus, in a study of 24 members in a coöperative living project, Gorden (*426*) found that the members tended to compromise between their private opinion and their perception of group opinion when expressing themselves publicly. Again, this does not preclude the group as a whole serving to persuade each member. Thus, some persuasion also occurred in the living project, since members' private opinion shifted toward the perceived group opinion, although not to the same extent as their public opinion. Any or all members may perceive that the group, as a group, is more able to solve the problems faced than any member working alone. Group decisions may persuade as well as coerce. They will be coercive when members regard compliance as a means to reward, acceptance, sup-

port, or as a way of avoiding punishment, ostracism, loss of support, expulsion from the group, rather than as the correct solution to the particular problems at hand. Group decisions will persuade when members view the decisions as the best possible solution to the problems they face. More discussion of group control will follow later in describing the phenomena of conformity and its use in permissive or "group-centered" leadership.

CONFLICTS AROUSED BY USING POWER TO LEAD

Although Chapter 16 will deal in detail with the conflicts of leaders and followers, it will be useful at this point to discuss briefly the conflict produced by coercion, since it will provide us with a basis for discussing permissive leadership—leadership where power and control are used to some extent but where much of the conflict produced by use of power may be avoided. If *A* with his power inhibits *B* from pursuing goal *b* and directs B toward goal *a* so that *A* successfully leads *B* publicly but not privately, what happens to *B*'s inhibited drive toward goal *b?* *B* may remain in a state of dissatisfaction with his relations to *A,* or *B* may react to the thwarting of his desire for goal *b* by one of the many pseudosolutions to such frustration. Or his efficiency in moving toward goal *a* may be interfered with by the continued private existence of the interest in goal *b*.

COERCION, RELATIVITY OF EFFECTIVENESS, AND DISSATISFACTION. While coercive leadership may be effective, implied by the meaning of coercion is that its effectiveness may be relevant only to the coercer and not to the coerced.

If *B* is an hourly worker with union security, and *A* is a foreman whose year-end bonus depends on *B*'s productivity, high productivity by *B* may be only *A*'s goal. *B* may only be concerned with producing enough to avoid *A*'s using his power to punish *B* for insubordination or ancillary rule violations. Under such circumstances, *B* may be productive, but productivity may not be particularly relevant as a source of effectiveness for *B*, except as a way of avoiding punishment. In fact, staying out of the foreman's way may be more relevant to *B*'s satisfaction.

A variety of comments and evidence is available concerning the relations of coercion, effectiveness, and dissatisfaction. Miller (*746*) suggested that administrative acts making minimum use of control would

boost morale (satisfaction), while acts with more than necessary control would reduce satisfaction. Weschler, Kahane, and Tannenbaum (*1101*) observed that a research laboratory headed by a coercive leader was more productive but less satisfying to its members than another laboratory under conditions permitting members more freedom to make decisions. Again, Shaw (*941*) found that time to learn was less under coercive leaders (order-givers) in a communication network, that less errors were made, but that job satisfaction was lower compared with nets operating under persuasive leaders who only offered suggestions rather than gave orders.

CIRCUMVENTING ATTEMPTS TO COERCE

There are various ways the effects of power may fail to produce an expected submission and fail to yield effectiveness for the would-be coercer. The frustrations of coercion may result in a variety of reactions, instead of simple compliance with the dictates of the power figure. Investigators have reported the occurrence of hostility, aggression, withdrawal from the problem, reaction formation, and behavior analogous to compensation as ways coerced followers react to those with power over them.

HOSTILITY. Indirect evidence that coercion results in hostility was obtained by Weiss and Fine (*1098*). They found that subjects who had experienced insult and failure were more receptive to arguments to be hostile and punitive while comparable subjects given satisfying experiences were more ready to accept communications to be lenient. The chain of events suggested was, "If I am punished, I will become hostile. I will be more ready to agree to punish someone else." Hostility toward power figures who can coerce other members was also found by Stotland (*999*).

WITHDRAWAL. Members may leave the group or withdraw from the problems at hand to avoid being coerced. Withdrawal from the important problems was noted by Riecken (*861*) as a reaction to the frustration of coercion. Referring to an unpublished paper by Main and Nyswander, Riecken suggested that when members are coerced into reaching or maintaining consensus, or when members are uncertain concerning the effects of public disagreement, the major issues may be avoided to prevent argument and maintain peace at all costs.

OVERREACTION. Pigors (*826*) commented on overreaction or re-

action formation as solutions to the frustrations of coercion, citing a case concerning bullied cabin boys who when directed to wipe the silverware, wiped hard enough to remove the silver plating.

Both Janis and Feshbach (*571*) and Kelman (*605*) obtained evidence indirectly supporting the proposition that using a "massive dose" of power is less successful in changing behavior than more moderate amounts. Under extreme conditions, both theorize that interfering responses are aroused counteracting the effects of the attempts to influence through power. Conditions of strong, mild, and minimal fear were included in propaganda about dental hygiene and resistance to counter propaganda was measured by Janis and Feshbach. Minimum fear arousal appeared to provide the most persistent influence. Maximum fear arousal resulted in ignoring or avoiding the influence attempts (a form of withdrawal), or the development of conflicting tendencies to minimize the importance of the threatening propaganda. Similarly, Kelman (*605*) found that school children told that all would be rewarded for accepting a suggestion were more likely to reject the suggestion than children told that only a percentage of those accepting would be rewarded. Least ready to accept the suggestion were children without any opportunity for reward for compliance. Kelman's (*605*) reasoning paralleled Janis and Feshbach. He argued that when coercion was too great, interfering responses and hostility toward the coercer make subjects less prone to accept influence attempts.

COMPENSATION. A form of "group compensation" may arise, according to Stotland (*999*), as a reaction to attempts to coerce if the opportunity is made available to do so. Individuals subject to the veto power of a supervisor planted in the situation by the experimenter used models to design a city. Work was interrupted twice. Some of the subjects were given the opportunity to meet privately in the absence of the stooge-supervisor. Others were not. Those who met privately became much more aggressive, hostile, and independent toward the supervisor. Those not meeting continued to accept the supervisor publicly. It would seem that the private assembly permitted the formation of an informal organization to present a unified front against continued attempts to coerce the members. This laboratory result is in line with Pfiffner's (*820*) observation that informal organizations develop in industry to resist harsh management practices. Leadership of these in-

formal groups is centered on those most able to resist management's demands.

SUCCESS RATHER THAN EFFECTIVENESS. Power provides rapid public success as a leader for the member with power. But the costs are great, and continued use of power may result in eventual failure. In addition to increasing dissatisfaction among followers and ineffective groups as far as they are concerned, even the goals of the power figure may become harder to obtain. Pfiffner (*820*) notes the tendency for upward communication to be poor under coercive conditions. If things are not going as planned, for example, members will hesitate to inform the powerful leader. Lack of upward communication prevents needed release of tension delaying improvement in group problem-solving (Thus, Thibaut and Coules [*1027*] demonstrated that the communication of hostility toward an instigator will tend to reduce the residual hostility toward that instigator.) When the power figure is the instigator of frustration, hostile communication from the other members is likely to be inhibited. Horwitz, Goldman, and Lee (*545*) showed that students frustrated by the arbitrary refusal of a teacher to repeat instructions were much more likely to shift to more favorable attitudes toward the teacher, be less annoyed, and regard the teacher as less coercive when the teacher read student opinions and agreed to repeat instructions, than when the teacher was informed by "higher authority" that he should repeat instructions. These investigators also found that problem-solving and learning were best when direct action could be taken by students to "reform" the coercive teacher, somewhat less efficient when they could only state their grievances, and poorest when they were led to perceive that all the other subjects accepted the coercive teacher's refusals to repeat instructions. In this last case the effects of group control were added to the coercive influence of the teacher.

The way out of the dilemma is for the powerful to become permissive.

CHAPTER 13

ABILITY, POWER, AND PERMISSIVE LEADERSHIP

Of the best rulers
The people only know they exist
The next best they love and praise
The next they fear
And the next they revile.
. . . But of the best when their task is accomplished, their work done
The people all remark, "We have done it ourselves."
—LAO-TSE, The Book of Tao (ca. *550* B.C.)

The ancient Chinese philosophers, particularly Lao-Tse, commented frequently on the effectiveness resulting from permissive leadership by the powerful rulers rather than coercive leadership. Lao-Tse formulated the maxim, "Rule a big country as you would fry a small fish." (Let it alone, or the fish will fall apart from constant handling.)

It may seem paradoxical to conceive permissive leadership as resulting, like coercive leadership, from power. But the name "permissive leadership" itself implies power. If I permit you to do something, it means I have the control and power either to allow you to act as indicated or to deny you the opportunity.

Permissiveness and coerciveness may differ only in the degree of inhibition imposed. Under permissive conditions, *A's* restrictions are much more liberal and *B* can operate within a wide range and still

avoid punishment or gain reward. Under coercion, *A* restricts or inhibits *B* so that *B* can only operate within a narrow range if he is to avoid punishment or gain reward. *A* does not need much ability to do this. But to lead permissively with success, *A* must have some ability to know what to permit and what not to permit.

If *A* is permissive, the restrictions he imposes often center on the interaction process. He may interpose to prevent one member from monopolizing discussion. He may interject his opinion when he feels the group has moved away from the critical problems facing it.

PERMISSIVENESS AND GROUP DECISION-MAKING. Most of the negative effects found in coercion resulting from inhibiting *B* from moving toward goal *b* are avoided, because the permissive leader attempts to have *B* select goal *a* as his own by examining the problem until he perceives the reward value of goal *a*. Successful permissive leadership is likely to be effective for the leader as well as for those led, for the goals of both become relevant for both. In coercion, this is not so necessarily.

Most generally the permissive leader, *A*, makes use of his power in a variety of ways aimed at ultimately moving *B* towards goal *a* without creating the conflicts produced by coercion. Ability is required by *A* also to be a successful permissive leader, for *A* must know when to use his power, and when it is not necessary to do so. His success and effectiveness will depend on the judiciousness of his decisions to restrict or not to restrict.

Permissive leadership usually involves permitting *B* or the group, as a group, to participate in making decisions and selecting its goals within the permitted range allowed by *A* or the situation. Let us suppose that *A* already knows the "correct" answer. Instead of persuading *B* or coercing him into accepting this answer, *A* may permit *B* to explore the alternatives to the solution to the problem, imposing only a minimum of restrictions on what *B* is permitted to do. As described earlier, *B* is likely to reach the "correct answer," to move in the direction of greater effectiveness, particularly if *A* imposes timely restrictions when necessary to keep *B* from straying too far afield. Interaction produces change and change produces increased effectiveness.

PERMISSIVENESS, GROUP DECISION, AND GROUP POWER. When the powerful member permits the group to decide, he avoids using his power to coerce, except to impose those restrictions necessary to aid the group to reach the decision. By doing this, he avoids the hostility, re-

sentment, and apathy likely to be generated by his own attempt to coerce the group into complying with his already-made decision. By suitable interpositions, only when necessary, he usually can get it to reach the decision he desired prior to the interaction, or a decision which is acceptable to him. But such a decision now has behind it the power of the group to coerce its members as well as the members' regard for the group, as a group, as more able to reach a proper decision than each member alone.

Thelen (*1023*) has noted how the permissive leader makes use of the power and control of the group over its members. "Group agreements have teeth in them. Their determination of what is possible, at what cost or with what reward, is the control of the group. Changing the agreements, hammering out new ones to fit the continual diagnosis of realities in the ever-changing group-problem situation—this is the function of leadership. More precisely, leadership is a type of gatekeeping . . ." (pp. 297–298).

Again, Tannenbaum and Massarik (*1016*) comment that participation in decision-making increases the likelihood that workers will accept goals desired by management, resulting in greater worker satisfaction and increased efforts to move toward the selected goals. Likewise, McGregor (*694*) argues that worker effectiveness will be increased with opportunities to participate in solutions of problems and discussions of actions affecting themselves and with opportunities to assume responsibilities when ready for them. Actually, one follows from the other. For example, if members of a group participate to some extent in setting goals, they will be more motivated to achieve the goals. If they are more motivated, and assuming they are able, they can be delegated more responsibility or freedom to act without review by higher authority (Learned, Ulrich, and Booz [*641*]).

The opportunity to be permissive and yet successful as a leader is greater, the stronger the power of the group, as a group. For example, if the members are not attracted to the group, it is probable that the group agreements will have little "teeth" in them. Conversely, if members expect large rewards from group success, the agreements are likely to influence strongly the behavior of each individual member.

Before considering how the permissive or "group-centered" leader makes use of his power and ability without having to coerce the mem-

bers continuously, by bringing into play the effects of group power and group ability, let us examine these effects.

GROUP POWER, GROUP ABILITY, AND CONFORMITY

Membership in a group facilitates accepting the influence attempts of others. Members tend to shift toward "what everyone else thinks or does." This phenomenon of conforming to the group norm or group mode can be accounted for by considering the coercive effects of group power and, secondarily, the persuasive effects of the perceived superiority of group ability or majority or modal opinion.

MEMBERSHIP FACILITATES COMPLIANCE

As early as 1916, Clark (*222*) demonstrated experimentally that an individual is more prone to accept a suggestion if he is in a group than if alone. While about 1 in 5 in a group of 168, as suggested, sensed an "odor" in a bottle of water, only about 1 in 9 examined individually accepted the suggestion. Similarly, Deutsch and Gerard (*271*) noted in an experiment that individuals forming a group are more influenced by observed standards than those not in a group. Again, Katz and Lazarsfeld (*596*) observed that people are more likely to change their opinions if their small group of family or friends are undergoing a similar change. The changes are also more likely to persist if shared with their personal associates. Individuals also seem to be more affected by mass media when listening in groups than alone. In the same way, Lieberman (*670*) found that workers promoted to foremen tended to shift attitudes toward favoring management as they became members of management. Workers with the same attitudes of those who became foremen, but who subsequently were elected as union shop stewards, shifted attitudes in the union direction after 12 months in office as stewards.

THE TENDENCY TO CONFORM

Early studies by Conradi (*235*), Moore (*758*), Bechterew and Lange (*105*), and Wheeler and Jordan (*1105*) clearly demonstrated the tendency of members of a group to shift in attitudes and behavior in the direction of the majority or modal or statistically normal behavior. Conradi (*235*) observed that fledgling sparrows reared with canaries tended to develop a canary-like song. But when transferred to a flock

of sparrows, they tended to sing like sparrows. Moore (*758*) ascertained that linguistic, ethical, and musical judgments of students shifted upon retest in the direction of what was perceived to be majority opinion. The same was found true by Bechterew and Lange (*105*) among Russian teachers and medical students judging time intervals. Wheeler and Jordan (*1105*) showed that 60 percent of their subjects shifted social, political, and economic opinion toward the majority position when it was revealed while only 4 percent moved away from it. Marple (*717*), Thorndike (*1033*), and Hilgard, Sait, and Magaret (*517*), obtained similar effects from majority decisions.

More recently, Asch (*36*) has shown in a series of experiments that conformity to a simulated group opinion can be induced even when the group decision defies the senses. A fair proportion of subjects will agree that the clearly shorter of two lines is longer if they see all the other persons (stooges) in the same situation stating that the shorter line is the longer one. In a series of experiments, Bass (*73*) consistently found that rank order judgments of members almost always are more highly correlated after a discussion than before they discuss the rankings. The members increase in agreement, conforming more to each other's opinion both publicly and privately. Similar results were reported by Hare (*476*) and McKeachie (*700*).

And the effects persist even after the group disbands. When partners are separated after experiencing a judging situation together, they continue to exert mutual influence on each other's judgments when asked to judge alone (Cohen [*230*]). The tendency to be affected in this way was found by Bovard (*154*) to persist for at least 28 days.

POWER OF THE GROUP

Why do we "when in Rome, do as the Romans do" as advised by the ancients? We have suggested earlier that members see the group as more able, as indeed it usually is, to cope with problems than the lone individual. Thus, members can be persuaded by group decisions, once known. And, if each member is susceptible to influence, and is subjected to the same valued suggestion as every other member, it follows that all will tend to accept this same suggestion. Members' behavior and attitudes will become more similar, shifting in the same suggested direction. But, in addition, by definition the group is a collection expected to reward its members. The more expectant the members,

the more they are attracted to the group. The collection, as such, has control of what can reward its members. If members are motivated to obtain the rewards, the collection has power. The more attractive group, by definition, is one in which members expect greater rewards for membership. Therefore, the more attractive a group, the more it has power over its members. The attractive group has the power to coerce its motivated members. As Fearing and Krise (*308*) commented, the extent conformity occurs in a group depends on the control exercised. A physical roadblock will stop almost everyone. The punishing power is almost absolute for those who might want to crash through it. Motorists will conform almost as much to a policeman with immediate reinforcement potential and much more than to a symbol like a stop sign. Conformity to the sign will depend on its secondary reinforcing value. Late at night, when the danger is less of being observed failing to stop in response to a sign, conformity will be even less.

The effects of ability and power point to ways conformity is increased or reduced in a group. Conformity will be greater if the standards to be adopted are clear; if rewards or punishments are probable, immediate, frequent or intensive; if a member's behavior can be readily observed or evaluated by others; if the group is attractive; if the members esteem each other; and if coöperation is required for goal attainment.

MOTIVATION AND CONFORMITY

Most "group dynamics" investigators have emphasized the importance of "pressure" to conform. Thus, Deutsch and Gerard (*271*) reported that in the Asch line-judging situation, the normative influence is less when there is less of a group pressure to conform. This description of how much conformity will occur can be accounted for by the reinforcement given or expected for compliance to group norms. We do as the others do to avoid ostracism or censure from those we value, or to gain various rewards, such as encouragement, money, or friendship. The greater the motivation for the rewards for conforming and the stronger the reinforcements for doing so, the more we are likely to conform. We may experience or perceive ourselves as under more "pressure" to conform although from an observer's view nothing is added by stating that "a subject is under pressure to conform" rather than "a subject conforms." What is significant are the motivation and reinforcements producing the conformity. Thus, groups ranging from

totalitarian national states to midwestern adolescent cliques may regard deviation as disloyalty and treason. No "loyal opposition" is possible. Deviation is punished by expulsion or other penalties. Members conform, or else . . . In traditional Japan, negative votes in a group were rare. Members faced loss of esteem, ridicule, and offense to others if they deviated from the "will of the group" as announced by the group leader. He in turn had to divine what the group needed and wanted, as a group (Kerlinger [*609*]).

ADOLESCENT CLIQUES. Hollingshead (*531*) observed the power dynamics resulting in a high degree of conformity within the adolescent clique. If you wanted to join the clique, you had to conform to clique standards. After being admitted, you had to conform if you wanted to remain a member of the clique and continue to receive the rewards of membership. Goodenough (*421*) and Horrocks (*541*), among many others, share the opinion that most adolescents must conform to their peer groups to avoid exclusion or expulsion. "Even the leader who can ignore and change peer-group customs and attitudes can do so only to a limited extent, and must not skirt too widely the accepted group mores and observances lest he earn for himself the dreaded appellations of 'drool' and 'drip'" (*541,* p. 91). Faris (*306*) agreed we conform to remain in a group in which membership is rewarding. The other members may demand conformity because it is perceived to be a way of avoiding discord and dissatisfaction.

POWER OF CULTURE. Again, Kluckhorn (*617*) accounted for cultural conformity in these terms. Cultures vary in their evaluation of responses to natural obstacles; in their regard for man; in whether the past, present or future is most important; and in what interactions are most valued. Anyone born into a culture conforms to the same "value orientation" in order to be accepted and remain in the same social order. Deviation is likely to result in rejection and loss of esteem among the rest of the members sharing the cultural values.

Munch (*771*) noted how a small, homogeneous community like that on Tristan da Cunha could exist with only the power of mutual esteem to control its members. Public teasing is the most drastic penalty for deviation from custom. "What will people think?" serves to maintain order.

MILITARY DISCIPLINE. Using the group to control its members and

maintain conformity was a cardinal feature of Mongol military discipline. A medieval Christian missionary to Karakorum noted:

> When they are in battle, if one or two or three or even more out of a group of ten run away, all are put to death; and if a whole group of ten flees, the rest of the group of a hundred are all put to death, if they do not flee too. In a word, unless they retreat in a body, all who take flight are put to death. Likewise if one or two or more go forward boldly to the flight, then the rest of the ten are put to death if they do not follow and, if one or more of the ten are captured, their companions are put to death if they do not rescue them (Plano Carpini [*827*,] p. 33).

The severe corporal punishment may not have been necessary to maintain "all for one; and one for all." Bovard (*154*) suggested that a person will conform to learning, accepting and fixating the average or modal opinion or behavior to maintain his esteem in the group. A common observation of World War II among American servicemen was that they seldom deserted and rather faced death in infantry or air combat not out of fear of punishment nor for patriotic motives, but because of what their buddies, friends, and family would think of them if they deserted.

POWER OF THE WORK GROUP. Well recognized is the power of the group to induce conformity in work. Roethlisberger and Dixon (*878*) described how the informal work group controls its own members' output. A worker conforms by not turning out too much work to avoid being tagged as a "ratebuster," or too little to avoid being regarded by his colleagues as a "chiseler." Riesman's (*864*) thesis was that contemporary man is one trained to conform; one sensitive to the attitudes, needs, and beliefs of the group, and directed by the group. He is concerned more about pleasing the other members of the group than himself. Again, as earlier described by Znaniecki's (*1155*) law of social sublimation, Hall (*459*) found that occupational success depends on the novice conforming to the professional group controlling the rewards within the profession. The fate of an individual's career depends greatly on his colleagues.

POWER OF THE GANG. His peer group is more of a "substitute family" for the delinquent, a greater source of reward and punishment, than for the nondelinquent. This may account for Harvey's (*481*) observation of "greater solidarity" among cliques from a slum than those from higher socioeconomic status.

EXPERIMENTS WITH GROUP POWER. Still other evidence of the dynamics of conforming to earn reward or avoid punishment is provided by Hoffman (*524*) and Horwitz (*543*). Hoffman (*524*) confronted subjects with group norms alternately agreeing and disagreeing with the subject's own responses. Psychogalvanic skin responses of subjects suggested that tension was reduced when they believed themselves to have conformed to the group rather than when they saw themselves in disagreement with others. Horwitz (*543*), in a group study, examined the Zeignarik effect, the greater recall of subjects for incompleted rather than completed tasks. Members were under greatest tension, according to their greater recall of interrupted tasks, when they personally voted not to continue when the group voted to continue the task.

Needed are empirical investigations of how the probabilities and strengths of reinforcements for compliance affect conformity. Also unknown is the way members resolve the conflicts engendered with the reinforcement of self-oriented needs. The role of partial reinforcement and stimulus generalization in maintaining conformity would also be of interest.

ATTRACTIVENESS, GROUP POWER, AND CONFORMITY

As noted earlier, the power of a group increases with its attractiveness, making for greater conformity. Thus Festinger (*320*) suggested that the "pressure to conform" is greater the more we value the group whose judgments we compare with ours and the more important, significant, or relevant are the judgments to us. Corroborating earlier findings, Gerard (*390*) noted that the greater the attraction of the members to a group, the more they coalesced in opinion. Again, Gorden (*426*) observed more conformity by members with greater degree of identification with the group. Similarly, Newcomb (*783*) observed that the extent Bennington College students wanted to "belong" on campus determined the extent they shifted their social attitudes in the direction of the modal or prevailing liberal attitudes on campus. The same results were revealed by Seashore (*922*) in a different area. He found less variance in productivity among different members of the more cohesive or attractive of 228 factory groups. Again, Rasmussen and Zander (*846*) found that a teacher's level of aspiration conformed more to the ideal of his group, the more he was attracted to the group.

RELATED FACTORS

Consistent with the generalizations relating power, attractiveness, and conformity, are a number of facts enhancing the effects.

VISIBILITY OF INDIVIDUALS. If members are uncertain about what will happen if they "stick their necks out" and disagree with the group publicly, they will tend to avoid public deviation, although they may privately reject the majority or modal opinion in the group (Riecken [*861*]). If it is impossible to identify whether a member is conforming, he can deviate without fear of punishment, and will more readily do so, according to an experiment by Deutsch and Gerard (*271*). Also, if failure to conform on the current issue under discussion is just one more way a member sees himself differing from others, he will be less concerned about conforming than if he is led to believe that he is like the others in knowledge and abilities in all other respects (Gerard [*389*]).

INCREASING GROUP IMPORTANCE. The conformity effects can be increased by giving the group, as a group, more control or power, by making it more important to its members. For example, Dickinson (*274*) observed that the effectiveness of group wage incentives depend on mutual policing. Members working for group rewards are more likely to keep up with each other in groups sufficiently small to permit effective mutual observation. Again, Berkowitz and Levy (*122*) noted that if the group as a whole is praised, instead of individual members, more pride with the group and concern with group task (more attractiveness) can be obtained. Members of such groups, rewarded as groups, were found by Grossack (*441*) to demand more uniformity from each other, than individuals competing with others for rewards.

CLARITY OF GROUP NORM. Most significant is whether the members are clear concerning the group norms, the modal or majority opinion of the other members. The clearer the members are as to what they must conform to, the more they are likely to conform. Thelen (*1023*) proposed applying this principle to rebuilding neighborhoods through community action. He suggested setting up block standards: group-developed standards of behavior expected of neighbors and group-selected standards of quality to be maintained in dwellings. "In the development of such standards through discussion and in participation in them, a coercive force arises which prevents many selfish impulses from finding expression" (p. 13).

A variety of experiments substantiate the validity of this generalization about clarity of group norms and conformity to them. In judging intelligence from photos, subjects tended to shift their judgments toward the group decision, if they obtained knowledge of the decision (Goldberg [*414*]). Similarly, Gorden (*426*) observed that when expressing their public opinion, members of a coöperative living project tended to be influenced by what they perceived was group opinion. Again, Bennett (*112*) obtained more compliance with a request for volunteers among those who perceived most others doing the same. Pennington, Haravey, and Bass (*814*), with the "mark sense" method of objectively studying behavior in groups described earlier, obtained the greatest increase in agreement among members in groups where members made public their initial opinions in discussion or a group decision was announced. Coalescence of opinion was less when either decision or discussion was absent and it was least when both were absent. Similarly, in studies of autokinetic judgment Walter (*1083*) found that agreement of subject's judgments decreased the elimination of information concerning the judgments of typical students at an esteemed school.

CONSISTENT PERSONAL DIFFERENCES IN CONFORMITY

Observed differences in members' tendencies to conform fit with the conception of conformity as a means of gaining rewards by accepting the group as more able to cope with problems than the lone individual. If a member sees the average group opinion or skill as superior to his own, he is more likely to conform than if he sees himself as more capable. A member will be more ready to conform if he lacks self-esteem; if he is uncertain about his own ability; if he is less mature and more acquiescent generally.

First, it should be noted that individuals do differ consistently in their tendency to shift away from their own opinions toward the group decision or toward the average response of others in the group. When members of 19 groups ranked judgments before and after each of 12 brief discussions and after announcing a group decision, an estimated split-half reliability of .61 was found in the tendency to shift one's opinion. A similar reliability of .59 was found in the tendency to accept the group decision, and a corresponding coefficient of .61 was found for the tendency to agree with the others after discussion (Bass [*67*]). Subsequent analyses of an additional 51 groups suggested that the con-

sistency was reduced when members were under high motivation to perform well (Bass [*74*]).

SELF-ESTEEM. Asch (*35*) noted that more self-confident individuals refuse to defy their own senses and to yield to the majority of "stooges" judging incorrectly the length of two lines. Similarly, Hochbaum (*522*) found that members with higher self-esteem with reference to the task were more likely to resist pressure to conform. Again, Deutsch and Gerard (*271*) and Wiener (*1117*) both reported conformity less among those more certain of their own correctness in judgment. In relation to age and intelligence, conformity seems to be a reflection of suggestibility. Just as suggestibility was found to decrease with age by numerous early investigators from 1890 onward, so Berenda (*177*) found that older children were more cautious and less prone to conform than younger children in the Asch line-judging situation where all others in the group deliberately reported the longer of two lines as shorter.

Social acquiescence—the tendency to accept any generalizations about human behavior—seems to be a generalized personality trait associated with lack of education, intelligence, maturity, and social sensitivity. In turn, it appears higher among those more likely to conform to the demands of their immediate social groups (Bass [*70*]). Frye and Bass (*380*) found high scorers on a social acquiescence test significantly more likely to accept the group decision and increase in agreement with others in laboratory problem-solving groups. This may in turn account for the fact that R. D. Mann's unpublished analysis of 48 results from 8 investigations revealed that 78 percent of the results were positive when self-rated adjustment was compared with tendencies to conform. Yet only 31 percent of the results were positive when conformity was related to adjustment measured in other ways. It would seem that conforming subjects, when describing their own adjustment, tend to give more socially desirable responses.

INITIAL POSITION. A number of measurement problems are involved in objective assessment of the relations between conformity and initial judgments. Goldberg (*414*) found that an individual shifted more toward a group decision the further away he was from it initially. He suggested that subjects conform by a constant percentage of their initial distance from the group decision. In parallel is Festinger's (*320*) argument that those initially closer to the group mode in judgment will shift less. (If everyone tends on the whole to shift toward the group

norm, it is obviously impossible for those already close to it to shift very much.) However, Festinger adds that an extreme deviate will withdraw from the discussion. Related to this are studies of conformity among hospitalized neurotics and psychotics. Spohn (*977*) observed disappearance of group control in markedly regressed and withdrawn schizophrenics. Similarly, Levine, Laffal, *et al.* (*655*) noted less convergence toward group autokinetic norms among hospitalized neurotics in the same way that nonhospitalized extreme deviates withdraw and shift little toward the group standard.

A more detailed analysis based on changes in rank order judgments after discussion showed, as expected from the preceding examination of the effects of self-esteem, that the initially accurate members shifted less. But again, they did not have to shift as much to conform, for the final group decision was more like the initially accurate members' judgments than like that of those who were less accurate initially. Those in agreement initially with others shifted less from before to after discussion and yet still were more in agreement with others finally (Bass [*68*]).

PERMISSIVE OR GROUP-CENTERED LEADERSHIP

How *A* uses his power and ability to modify *B*'s behavior without the conflicts of coercion depends on what obstacles block *B*'s acceptance of goal *a*, on what *B*'s resistance to change in behavior is based. In practice, a combination of persuasive, coercive, and permissive leadership is likely to be employed by the able and powerful leader. A guide for conference leaders prepared by Standard Oil of New Jersey (*980*) notes a variety of leadership problems and solutions to them to be effective. The solutions assume the leader is a clear, rapid thinker, with ease of expression and analytical ability, who has sufficient power due to his position as conference chairman to bring about desired changes in others.

PROBLEM: A member in the group attempts to impose his opinions on all the rest.

SOLUTION: Encourage others to comment freely on would-be dominator's remarks. Build up confidence of the group increasing group power to take care of the attempted domination.

PROBLEM: A member continually argues and opposes without logical consistency any attempts at agreement or consensus.

SOLUTION: By using questions, give the arguer enough opportunity to trip himself without anyone getting personal. Get the group to state a decision as a group, again making use of group power.

PROBLEM: A member wants to monopolize the discussion.

SOLUTION: Resort to impersonal rules providing for each member to present his opinions briefly. Interrupt the monopolizer by asking others to comment. Talk to the monopolizer in private about the matter.

PROBLEM: A member is disinterested. Discussion needs to be stimulated.

SOLUTION: Ask direct questions vital to him. Ask his advice, cite good examples from his work or his past experience. Take the opposite from desired point of view and seek to have its shortcomings exposed.

Similar use of permissive power is seen in suggestions offered industrial supervisors when coaching their subordinates. In a General Mills brochure prepared from a survey of related materials, the non-directive counseling techniques developed by Rogers (*880*) and additional, more moderately directive approaches, are presented. Used in the supervisor-subordinate context, some of these illustrate how power can be used to guide the subordinate subtly in desired directions without the frustrations accompanying coercion.

1. Use pauses and silence giving the subordinate plenty of time to think, expand or modify his statements.
2. Invite him to express himself, asking for opinions, neglected points, unforeseen difficulties.
3. The subordinate can be made to continue elaborating his opinions by an occasional neutral comment such as "I see," "Uh-huh," or I get what you mean."
4. Encouragement to continue, to modify or to elaborate further can be given by repeating, clarifying, rephrasing, or summarizing what the subordinate has said.

This permissiveness can be contrasted with the coercive leadership possible to the more powerful superior—leadership that, if continued, is likely to result in withdrawal, apathy, or hostility. Some of these "famous last words" likely to stop conversation, cause withdrawal, and bar further productive interaction include:

"If I were you . . ."
"What you say just can't be so."
"This is what you are going to do."
"If you did what Jim does . . ."

"Fine but . . ."

"I told you so."

While some amount of attempted persuasion appears in these examples, the power figure is clearly evaluating, indicating personal approval or disapproval, bringing directly into play the promise of his power to reward for compliance with, or punish for rejection of, his advice and opinion.

Yet some coercion and some persuasion are likely to be exhibited by the generally permissive leader. The need of both power and ability to succeed and be effective as a permissive leader, as well as the coercive and persuasive aspects likely to occur when the permission is granted or withdrawn is suggested by Thelen (*1023*):

1. He may impose limitations on individual members' freedom to act.
2. He may create a balance of time spent in each of several activities.
3. He may balance acting with evaluating, stopping the self-perpetuating emotional battles which may break out in a group.
4. He may guide the exploratory process needed to solve the problem.
5. He may try to resolve the public and private goals of members.
6. He may promote the increased participation of the more able members and inhibit the participation of the less able.
7. He may set conditions for exploration; for example, he may divide the group into committees.
8. He may be instrumental in getting group agreement before proceeding further.

Numerous commentators, such as Tannenbaum and Massarik (*1016*), note that in any formal organization, the persons with positions of power combine permissiveness and coerciveness in decision-making. Subordinates can participate in suggesting the alternative solutions to problems and in evaluating the solutions, but the authority for the final decision usually rests with the person in power. He may even be resented if he attempts to delegate his own responsibility for the decision.

Whyte (*1113*) details how the industrial leader in a position of power can easily coerce, yet if he wishes to avoid the frustrations and conflicts likely among subordinates, he will endeavor to use his power to be permissive rather than coercive.

He can utilize discussion to draw from group members knowledge and

ideas that he himself does not have. In some cases, he may find that the decision seems naturally to evolve out of the group discussion, but it will still be his role to state that decision for the group [even without consensus], the discussion . . . may show how various men feel . . . and what sorts of decisions will be acceptable and what will not be, even though they give their formal assent. . . .

A skillful leader will seek to avoid decisions that will needlessly antagonize subordinates . . . [Power] need not be exercised in an autocratic or oppressive manner. It can be executed with great effectiveness if the executive goes beyond mere giving of orders and learns the skills of leadership in group discussion (pp. 41–42).

PERMISSIVENESS AND GROUP EFFECTIVENESS

As noted earlier, and as will be emphasized again in Chapter 18, interaction, per se, promotes change, and change is usually in the direction of increased effectiveness. Permitting members to decide following interaction with each other is likely to result in more effective, more rewarding, more strongly reinforced ways of behaving. Thus, following a review of the literature, Suttell (*1008*) suggested (and empirically demonstrated subsequently) that leadership is more effective if it "utilizes the intrinsically relevant condition to achieve success as a leader" at the same time setting the boundaries for what behavior is permissible.

Lewin (*660*) has made the following statements concerning the effectiveness of permitting the group to decide after interaction: When a member decides to do act 4 because of his own explorations and interactions with others and rejects acts 1, 2, and 3, the habit or tendency to perform act 4 is strong while the habits behind acts 1, 2, and 3 are weak. When a member merely listens to a persuasive argument to carry out act 4 and makes no decision, the differential reinforcement of the four responses is much less. Acts 1, 2, and 3 are relatively still strong. Lewin's thesis has been supported by numerous experiments in which group discussion was found superior to lecture techniques in modifying food habits, merit-rating tendencies of supervisors, prejudice, hostile attitudes, solutions to community problems, alcoholism, and emotional disturbances in children (Lichtenberg and Deutsch [*669*]).

EVIDENCE. As early as 1914, Munsterberg (*772*) reported that individuals' judgments of the number of dots on cards were more correct after participation in a group discussion. Yet, while Burtt (*178*) also found that discussion promoted change, he noted that average effectiveness was not increased. Radke and Klisurich (*844*) observed that mothers of new-born infants who engaged in discussion among themselves under the leadership of a dietician, eventually reaching group decisions coinciding with the usual recommended procedures, adopted the desired behavioral patterns much more effectively than a control group receiving individual instruction.

Anderson (*21*) described the presumed forestalling by discussion of a strike of union members in a Detroit factory. A meeting was held of management and union committeemen during which the offended members were allowed to discuss their grievances openly.

"Participatory leaders," directed primarily to inhibit hasty decisions and domination of the group by any one member, were contrasted by Preston and Heintz (*837*) with "supervisory leaders" instructed to keep the group on the task. With more equal participation, members, as a whole, showed more agreement with each other, and more satisfaction with activities, than members without the opportunity to interact as much. The latter were more likely to be coerced, showing less acceptance of decisions privately than publicly.

Faced with resistance by pajama factory workers to changing methods, Coch and French (*229*) compared a control group of operators, taught the usual way, with two experimental groups of workers. The new method was accepted more readily in both experimental situations where the workers themselves or worker representatives were permitted to discuss and decide on the changes in method. Similarly, Levine and Butler (*654*) reduced the "halo" in merit ratings assigned by foremen significantly more than in control groups by permitting them to discuss and make decisions regarding more realistic evaluations. Torrance *et al.* (*1051*) found that B-29 crews were more likely to reach a state of efficiency enabling them to go into combat, if earlier in survival school the crews had been observed to participate in decision-making.

Maier and Solem (*706*) showed that groups with a permissive leader, in contrast to groups where all members were equal in control, were

more likely to be effective. By using his position of control the permissive leader inhibited the majority of the group from completely dominating the minority whose important contributions were likely to be suppressed without the permissive leader's efforts.

In a series of publications beginning in 1938, Lewin and Lippitt (*661*) reported dramatic differences emerging from experimental voluntary boys' clubs led by democratic or permissive adults contrasted with those led by autocratic or coercive adults. The effects of individual differences in personality were eliminated by having each adult play each role and by changing the style of leadership given the clubs. The permissively led groups were more coöperative, friendly, constructive, and more attracted to the group. They were also more productive. Under autocracy, the boys showed more hostility toward each other, found a scapegoat, were less stable, and less willing or able to carry on in the absence of their leader. Similarly, Zimet and Fine (*1153*) contrasted content lectures given 15 chief school administrators with group-centered permissive discussion. Although initially more defensive behavior appeared with discussion, continued sessions reduced hostility, yielded increased warm, friendly behavior, more favorable attitudes toward themselves and others outside the meeting. Likewise, Ziller (*1150*) found air crews more satisfied with decisions to simulated problems when the crew discussed the problem and their permissive leader stated an opinion following the discussion than when the decision was made authoritatively by a more coercive leader. Weschler, Kahane, and Tannenbaum (*1101*) found that a research group led by a coercive leader was less satisfied with its job and perceived itself to be less productive than one led by a permissive leader. However, the leader's boss thought the coercively led group was more productive.

DISCUSSION OF OPPORTUNITY FOR DECISION. What is it that makes permissive leadership effective? Is it the opportunity afforded members to interact before accepting a decision? Or is it the opportunity to make the decision? The answer seems to be both according to our discussion in Chapter 7 concerning the fact that interaction brings reinforcements not possible in isolation.

OTHER REASONS. Permissiveness may result in greater effectiveness compared to coercive or persuasive leadership for other reasons. The permissive leader may call for members to commit themselves person-

ally, either in public or in private, to a selected course of action. Here the members impose some coercion on themselves. Or the permissive leader may keep the group in discussion until a decision is reached to which no one objects. When such consensus is reached, then the power of the group contributes to insuring that every member will work to carry out the decision agreed upon by all.

Most pertinent is Bennett's (*112*) previously cited study of students' volunteering for experiments. When students perceived that almost all the other members of their class volunteered, they were much more likely to serve themselves. In contrast to the effects of opportunity for discussion, and demands for public or private commitment, consensus or near-consensus and opportunity to make a group decision were most significant in determining whether students would serve as laboratory subjects. Yet Bennett suggested that many uncontrolled factors, such as salience of subject matter and variations in group cohesiveness, may have been operative in this field situation, making generalization difficult. These uncontrolled factors may account for Bennett's failure to find opportunity for discussion, as such, significant in affecting behavior as had been noted by most other investigators (*814*).

LIMITATIONS. Most analyses of permissive leadership have been chiefly concerned with improving performance by modifying motivation and reducing resistance to changes. Few have involved learning rather than performance. It is possible that learning, or the acquisition of responses, may be facilitated more by persuasive leadership than permissive leadership. Lectures may be more fruitful than group discussion when, for example, members are already highly motivated to change their behavior; when the lecturer is highly esteemed; and when the members are novices rather than already familiar with the material to be learned. For such highly motivated novices, permissive leadership may result in very slow gains compared to persuasion. When members already share the wrong information, permissive discussion may involve a fixation, or increased acceptance of this wrong solution (Bass [*68*]). The leader's ability to help the group solve its problems and his willingness to impose restrictions may be necessary for permissiveness to result in group effectiveness. Thus, Torrance (*1046*) contrasted five types of critiques following 16 minutes of problem-solving activity by air crews in survival school in order to see which resulted in greatest improvement in ability to solve subsequent problems. The largest gains were

made when an expert (using persuasive leadership?) led the critique; next best was guided discussion (permissive leadership?); least gain was found with free discussion where no control was exerted.

Stress may be conceived as a condition where motivation is high but ability to reduce the strong needs is low. Here again, it will be seen in later chapters that permissive leadership is less likely to be effective. In emergencies, members want rapid decisions given them by those with power.

PART VI

STATUS AND ESTEEM

What is the difference between status and esteem?
How does status provide ability and power?
How does status differ from leadership?
How is status measured?
What is the significance of symbols of status?
How significant is status in producing successful leadership?
How significant are sex, class, and caste?
How do individual differences in the motivation of the prospective followers affect the status-leadership relationship?
How does esteem provide ability and power?
How does esteem contribute to status?
How does status contribute to esteem?
What else increases esteem?
How does esteem contribute to successful leadership, particularly persuasive or permissive leadership?
What is the relation of mutual esteem to group attractiveness, effectiveness, and conformity?
What is the significance of self-esteem to leadership?
How do preceding events affect follower compliance?
What motivational conflicts affect acceptance of attempted influence?
How does the motivation to gain and maintain status and esteem produce conflict?
How does the follower resolve these conflicts?

What conflicts does the "man-in-the-middle" face?

How does he resolve these conflicts?

How does overestimation of self-esteem produce conflict?

What are the effects of incongruity between status and esteem? Between status and ability? Between esteem and ability?

How are the conflicts ensuing these incongruencies resolved?

CHAPTER 14

STATUS AND LEADERSHIP

What is it, in your opinion, to be a great nobleman? It is to be the master of several objects that men covet, and thus be able to satisfy the wants and the desires of many. It is these wants and these desires that attract them toward you, and that make them submit to you: were it not for these, they would not even look at you; but they hope, by these services, and this deference which they render you, to obtain from you some part of the good which they desire, and of which they see you have the disposal. . . . It is desire . . . that constitutes power; [through] the possession of things that men covet.
—PASCAL, On the Condition of the Great (A.D. *1660*)

Pascal clearly recognized the significance of position and power to leadership, independent of the worth of the individual occupying the position. And this was nothing new in Pascal's, the seventeenth, century.

Modern social psychologists also have been concerned with distinguishing between powerful positions and powerful persons. Cowley (245) noted the need to differentiate the power of "leaders" from the power of "headmen." Others, such as Vyscheslasvzeff (*1081*), have made similar distinctions between prophets and priests, between chiefs and medicine men, between philosophers and kings, as influences. Bierstedt (*126*) also commented on the same kind of distinction, describing institutionalized power as power due to position or status, and uninstitutionalized power as power as a person.

POSITIONS AND STATUS

In any formal organization, positions almost always vary in the extent that their occupants can contribute to the need satisfactions of themselves and others in the organization. As discussed in Chapter 9, some positions provide occupants with more information and ability to solve the group's problems than do other positions, making it more likely for the occupants of the former to succeed as persuasive leaders. But some positions also provide occupants with direct control of what is rewarding to others, making it more likely for the occupants to succeed as coercive or permissive leaders. Agreeing with Barnard's (*57*) conceptualization, we have suggested that occupants of positions of greater importance to the reward of others in the group have greater status in the organization. *Status* is the worth or value to the group of the occupant of a position, regardless of who he is personally. In contrast, *esteem* is his worth to the group because of his personal ability and personal control of any member, regardless of the position he occupies.

Formal interactions take place between occupants of positions within any social organization. The old man, regardless of who he is, is responded to as the occupant of a position by the young boy, regardless of who he is. The details differ from one social organization to another concerning what is expected of the occupant of each position, but all societies appear to recognize the following positions and the differences in value among them: infant, boy, girl, young man, young woman, old man, old woman (Linton [*673*]; Newcomb [*784*]).

STATUS, POWER, AND ABILITY

If status is primarily due to occupying a position providing positional control or formal authority, high status should produce successful coercive or permissive leadership if attempted among motivated members of lower status. Thus, when the lieutenant's command to move forward is obeyed for fear of punishment, the lieutenant is leading because of his power and the leadership is coercive. If status is primarily due to occupying a position providing knowledge necessary to solve the group's relevant problems, then successful persuasion is more likely. When the physician tells us to take a certain medicine, his status gives his attempt authenticity; the same attempt by a plumber would most likely fail to persuade us (Barnard [*57*]). Just as it is useful

to distinguish between height and weight, although they are correlated in nature, it is useful to distinguish between status due to control and status due to ability, although it usually requires artificial laboratory conditions to create status completely due only to one or the other. In natural organizations, it is usually impossible to distinguish the contributions to status of information and control. For example, the president of a voluntary organization may exert life-and-death control over the organization due to the knowledge given him by his predecessor in office of when to call a meeting to avoid certain members attending. He has control of the time of the meeting; his knowledge of when to call contributes to his power to influence the group's future course of action. In the same way, Tannenbaum (*1015*) noted that a leader can maintain control and power because of his ability to withhold information. This may serve to maintain his status and security, although power probably plays the predominant or critical role. Knowledge provides additional power or only becomes critical when members are more equal in control.

Trow (*1058*) experimentally examined the interacting effects of providing the occupant of a position in a communication network with access to communication channels to others and with access to information. Perceived status seemed more a matter of access to communication channels than to knowledge alone. On the other hand, in related studies of communication nets, Guetzkow (*443*) found that men in key positions showed better knowledge and understanding of the network than men in "end" positions.

STATUS AND ESTEEM

The issue is confused further by the tendency for esteem and status to be correlated in natural groups (Robins *et al.* [*869*]), as will be discussed in detail later. Personal ability and status are also likely to be positively related (Fox [*357*]). For example, Weiss (*1096*) showed that whether scientists in a government organization could make decisions depended not only on their position but also on their educational level, their years of experience, and their experience in the field.

STATUS AND THE SEMBLANCE OF POWER

Still more complexity is introduced by conditioning and the effects of partial and secondary reinforcement. These may provide status to a

member who has a position with the symbols or cues of authority but without real control or positional ability. A position may have status merely because at an earlier age its occupants had been esteemed, or had had authority and positional ability. History is replete with examples of office-holders having no power nor exerting any leadership. The British constitutional monarch "reigns but does not rule." The Mikado lost all decisive power to the Shogun; the Merovingian kings were powerless compared to the mayors of the palace. Actually, the American presidency is unusual in combining the power office of chief of government and the ritualistic office of Chief of State that corresponds to the premiership of parliamentary democracies whose presidents and kings serve only as chiefs of state, being little more than symbols of status. Hughes (*551*) conceptualized the development of the former by noting that as the duties and tasks of a position become more fixed regardless of the occupant, the occupant becomes a symbol who can make no decisions and hence, despite his seeming status, can exert no leadership.

LEADERSHIP IS NOT STATUS

Further perplexity results because many studies of status, per se, have been regarded as studies of leadership. For example, Stogdill (*988*) listed 33 empirical investigations of persons "occupying positions of leadership." "Leadership in these studies is regarded as synonymous with holding office or some position of responsibility. The majority of the studies use high school or college subjects, and define leadership as holding some office such as president of student body, president of a fraternity or sorority, captain of athletic, or debating team, chairman of a club, and the like. . . . [Others] deal with adults in rural communities and small cities . . . congressmen [and] . . . government administrators" (p. 37).

Aside from mixing two concepts, each with its own distinguishable genesis and effects, further error is likely if the offices mean nothing or if occupants are no more than symbols without power.

Indiscriminability of the concept of status also arises from differences among occupants in their personal motivation for using their status. Two administrators with the same status may exhibit different leadership behavior because of differences in motivation (Shartle [*934*]). Moreover, those of high status often have the power to recast their

own positions according to personal work patterns. It is less possible for persons lower in the administrative hierarchy to change the duties of their position to suit their own work preferences (Shartle, Stogdill, and Campbell [936]). Finally, as will be considered in detail later, status implies control but control yields power only if those of lower status find rewarding what is controlled. To understand the effects of status requires an examination of the motivation of those of low status as well as those of higher status in the organization.

MEASURING STATUS

RANK OR ECHELON. The most common, most easily obtained index of the value of a man's position in a formal organization is found in his assigned rank or the location of his position in the echelons of organization. (Echelon and rank are highly related, correlating .92, for example, in naval organizations [Campbell (*185*)]). Usually, the positions of higher rank or in higher echelons provide the job occupant with greater control and, to a lesser extent, with more knowledge of how to move the organization toward its goals.

JOB EVALUATION. The modern industrial organization often devotes considerable effort toward establishing the relative worth to the organization of each position within it (Otis and Leukart [*799*]). The simplest among the four types of methods requires department heads to rank in order of importance all the jobs within their own department. Then, a central committee coördinates the rankings from the various departments into a single scheme of grades or classes.

Another simple system consists in sorting all the positions within an organization into selected categories. The categories are arranged in order of value to the organization by a committee with knowledge of all the positions in the organization based on first-hand experience or descriptive reports by job analysts. For example, all jobs can be assigned to one of three categories of worth: unskilled, semiskilled, and skilled.

In the point system of job evaluation, each of several components of every position is evaluated. A job is assigned a certain number of points for its rating on a particular factor, such as the physical demands of the job. It is assigned points depending on its ratings on each of several other factors. The sum of all points assigned the job is an index of the worth of the position to the organization. Factors commonly considered include education and experience required by any occupant of the job;

physical demands; responsibility for equipment, materials, or the safety and work of others (War Manpower Commission [*1084*]). Lawshe and Wilson (*638*) found that almost all the differences in manufacturing organizations in the value of jobs can be covered by rating just two or three factors. In fact, judgment of "skill demands" alone seemed to account from between 77 to 99 percent of all the variance in total points in job ratings. But Barnard (*57*) regards the difficulty of the position (as estimated by the percentage of persons who can or cannot perform it) as associated with the status of the occupant, but not as critical in determining status as the importance of the position to others in the organization.

In the factor-comparison or key-job method, the value of a position is based directly on pay scales. Key jobs currently varying in salary paid occupants are ranked in order of importance under each of several factors, such as mental requirements, skill requirements, physical requirements, responsibility, and working conditions. Current total salaries, judged as correct, are divided for each key job into several parts, one for each factor compared. The ranking the job receives determines what proportion of the total salary will be provided by that part. For example, if a pattern-maker now earning $2.50 an hour ranked first in mental requirements among the key jobs and ranked lowest in physical requirements, a much larger portion of the $2.50 would derive from mental rather than physical requirements. While only $.20 might be apportioned for physical demands, $1.30 might be assigned for mental demands. Once this had been established, then any other position in the organization with mental demands comparable to those of pattern-making receives $1.30 for its position in this area. The key-jobs apportionment of salaries determines the evaluation in monetary terms of all the other positions (Otis and Leukart [*799*]). In all these plans, heavy weight is given one or both of these two elements: ability or skills necessary; and authority, responsibility, or control over others.

Evaluation of positions in financial terms is nothing new. Status or value to one's family, clan, or social organization was clearly established in Anglo-Saxon law. The "man-price," or wergild, varied with a man's rank in society. This was the price to be paid to a man's kindred as retribution if he were killed by accident or openly. The various social rankings were indexed by their respective prices—men of 200, or 600.

or 1200 shillings. The Church fitted its own members into the scale of wergilds, equating a priest with a thane. Even the price of a king was set (from 6 to 15 times that of a thane [Whitelock (*1109*)]).

SOCIOMETRIC EVALUATION. While sociometry has primarily been used to assess the esteem and other attributes of members of groups, as individuals, the sociometric techniques have also been applied to assess status. Each member of a formal organization is asked, "Whom do you spend the most time with getting work done?" Stogdill and Koehler (*993*) found that the extent persons in lower echelons mention an individual as one with whom they spend the most time correlated .82 with the mentioned person's level in the organization. However, this measure to some extent was confounded by the contacted occupant's esteem, for it correlated .31, .33, and .23 with ratings of the extent the frequently contacted job occupant would be preferred as a leader in peacetime or wartime. A related sociometric measure of status was completely independent of esteem (r = — .08), yet correlated highly with status (r = .69) indicated by formal level in the organization. This sociometric measure was based on the tendency to be mentioned by persons in units other than one's own as a person with whom most time is spent.

Similarly, Browne (*167*) found that an executive mentioned frequently as one with whom others spend time was also an office-holder who described himself as higher in authority and who was in a higher echelon in the organization.

STATUS AND CONTROL

As stated in the beginning of our discussion of status, positions with more control are the more valuable positions giving the occupants more status. Or it can be assumed that the higher one's status in a formal organization, the greater will be his control or authority due to his position. This postulate is supported by sociological theory (Merton [*740*], Weber [*1093*]) and by empirical evidence. Increases in authority have been found in a number of investigations to increase with status as measured by rank or echelon. Browne (*167*) found significantly positive correlations between the echelon in which a business executive's position was located and his self-ratings on specially constructed scales purporting to assess responsibility, authority, and delegation. These measures also were related to salary. (As noted earlier, salary of a job

is usually established to correspond to the estimated value of the job to the organization.) Browne's study suggests that a man's status in an organization can be gauged crudely from his self-estimate of what he controls (his authority) and what is expected of him (his responsibility), or from his salary. Similar conclusions were reached in studying naval officers (Shartle, Stogdill, and Campbell [*936*], Stogdill and Shartle [*994*]).

An unpublished analysis of military officers by Borgatta provides further insight into the relation of rank, status, perceived authority or control, and perceived responsibility. Borgatta found that the higher the rank of an officer, the higher he rated himself in "authority to correct a subordinate who misbehaved" and the higher he rated himself in "responsibility for failure due to misbehavior of subordinates."

STATUS AND POSITIONAL ABILITY

The previously mentioned job evaluation systems were shown to index jobs as more valuable to an organization if the occupants of those jobs, no matter who they are, are better educated, more experienced, and meet more mental requirements. Studies of the occupational status hierarchy in social organizations also show that positions are more valuable and give their occupants more status if anyone in those positions either acquires more knowledge once he occupies the position, or is selected for the position only if he has the knowledge. In America, those occupations with highest status, according to college student raters, include physician, lawyer, banker, engineer, and school administrator, all requiring a great deal of education and specialized professional knowledge. Low-status occupations include truck driver, coal miner, janitor, wood carver and ditch digger, all with little or no educational demands (Deeg and Paterson [*263*]). Miners and laborers also perceive an occupational status differentiation similar to that of the college students, with some exceptions (Cattell [*203*]). In a communist society even more status appears to be associated with occupations with heavy intellectual demands. In primitive societies, the status of medicine man and the tribal elders was partly due to the knowledge held by anyone occupying such positions. Conversely, the lower status of women and children was often due to their lack of knowledge of magic, ritual, and tribal history.

SYMBOLS OF STATUS

Organizations differ in the extent to which cues are provided occupants of various positions making it easy to identify their status. Discriminations also are made easier by ceremonies of induction to office, titles, and special emoluments and perquisites of positions (Barnard [57]). Insignia of rank, differences in uniforms are characteristic of modern armies. Status differences in military organizations are clearly visible. In many societies, the adolescent often is easily discriminated by dress from the preadolescent; the married woman from the unmarried. Until modern times, each profession in Western society had its own identifiable costume. Some costume identification still remains, although the general trend in Western society, particularly the United States, has been toward the development of less noticeable differences. A similar trend seems to have occurred in communist China, where even the usual sex differences in dress are being minimized. But status is still clearly cued to a great extent—even more than we usually realize before attending more closely to the matter. A home address in a particular suburb, a white collar, a Cadillac, usually provide cues of status (sometimes quite incorrectly) just as much as the black robes of a judge on a raised dais or the MD on auto license plates. Table 4 illustrates, with some humor, the multitude of cues of status in the modern industrial plant. In most such plants, the general manager and the sweeper are seldom confused.

Until it becomes apparent that the person with the symbols of status is without the position of power or knowledge, that the king on his throne is but a puppet, that the president of a particular company is merely the figurehead with all power centering in the hands of an important stockholder, the person with cues of status will be reacted to as if he occupied the powerful position indicated by the symbols. With the symbols of status alone, a person can successfully lead those with lesser symbols until the others learn no power of position is associated with symbols. But, even here, others may react ritualistically to the bearer of status symbols despite the bearer's lack of power because the ritual has become habitual or satisfying in its own right, a customary way of acting approved by the group. Subjects still bow and curtsy to the constitutional monarch with status symbols but without the position of power. To do otherwise would bring ostracism, social

TABLE 4. Monsanto Chemical Company Exec-Chart: A Ready Guide for Evaluating Executives or R-H-I-P. In use by Chemists, Engineers, Trainees, and Students Throughout the General Office—Hundreds of Satisfied Users

Visible Appurtenances	Top dogs	V.I.P.'s	Brass	No. 2's	Eager beavers	Hoi polloi
Brief cases	None—they ask the questions	Use backs of envelopes	Someone goes along to carry theirs	Carry their own—empty	Daily—carry their own—filled with work	Too poor to own one
Desks, office	Custom made (to order)	Executive style (to order)	Type A, "director"	Type B, "manager"	Cast-offs from No. 2's	Yellow oak—or cast-offs from eager beavers
Tables, office	Coffee tables	End tables or decorative wall tables	Matching tables, type A	Matching tables, type B	Plain work table	None—lucky to have own desk
Carpeting	Nylon—1-inch pile	Nylon—1-inch pile	Wool-twist (with pad)	Wool-twist (without pad)	Used wool pieces—sewed	Asphalt tile
Plant stands	Several—kept filled with strange exotic plants		Two—repotted whenever they take a trip	One medium-sized—repotted annually during vacation	Small—repotted when plant dies	May have one in department or bring their own from home
Vacuum water bottles	Silver	Silver	Chromium	Plain painted	Coke machine	Water fountain
Library	Private collection	Autographed or complimentary books, reports	Selected references	Impressive titles on covers	Books everywhere	Dictionary
Shoe-shine service	Every morning at 10:00	Every morning at 10:15	Every day at 9:00 or 11:00	Every other day	Once a week	Shine their own
Parking	Private—in front of office	In plant garage	In company garage if enough seniority	In company properties—somewhere	On the parking lot	*Anywhere they can find a space if they can afford a car*

SOURCE: Monsanto Chemical Company, constructed by K. B. Barnhardt. See *Forbes*, July 1, 195[illegible]

penalties, embarrassment, not because of the king's power, but because it is now socially approved custom or ritual. The king may open parliament with a persuasive address listened to respectfully by his audience. But the speech is written for him by the head of government. The cues belie the true state of affairs.

STATUS AND LEADERSHIP

Much related commentary and empirical evidence can be cited supporting the proposition that the higher the status of a member, the more successful will be his attempts to lead others of low status. Power of position provides the high-status member with success in coercing others; ability gained from his position provides success in persuading others; both make it possible for him to succeed as a permissive leader. Again, as deduced in Chapter 9, since successful leadership, as such, is rewarding (particularly to the self-oriented member), the high-status member also will be more likely to attempt leadership. If his position gives him control, he will attempt to coerce others or attempt permissiveness; if his position gives him ability, he will attempt to persuade others.

STATUS AND SUCCESS IN INITIALLY LEADERLESS DISCUSSION. A correlation of .88 was found between echelon in the company of 131 oil refinery supervisors and their success in leading initially leaderless discussions, discussions for which no one was appointed chairman or discussion leader (Bass and Wurster [*93*]). The more the problem discussed concerned company matters, the higher was the correlation between the echelon in the organization of a discussant and his observed success as a discussion leader (Bass and Wurster [*92*]), suggesting the increasing importance to attempts to persuade of greater job knowledge by those with higher status. In a subsequent unpublished study, Bass and Coates obtained a correlation of .51 between rank among 264 ROTC cadets and their tendency to lead initially leaderless discussions among associates. (The lower correlation in ROTC suggests that status in ROTC gave less power than did rank in a business organization.) When 180 cadets were retested in a new discussion among their associates a year after an initial discussion, those who during the year rose in rank from cadet noncommissioned officer to first lieutenant or higher, gained significantly more in observed success

as leaders on the retest compared to the original discussion than those who received promotions to cadet second lieutenant only (Bass [*64*]).

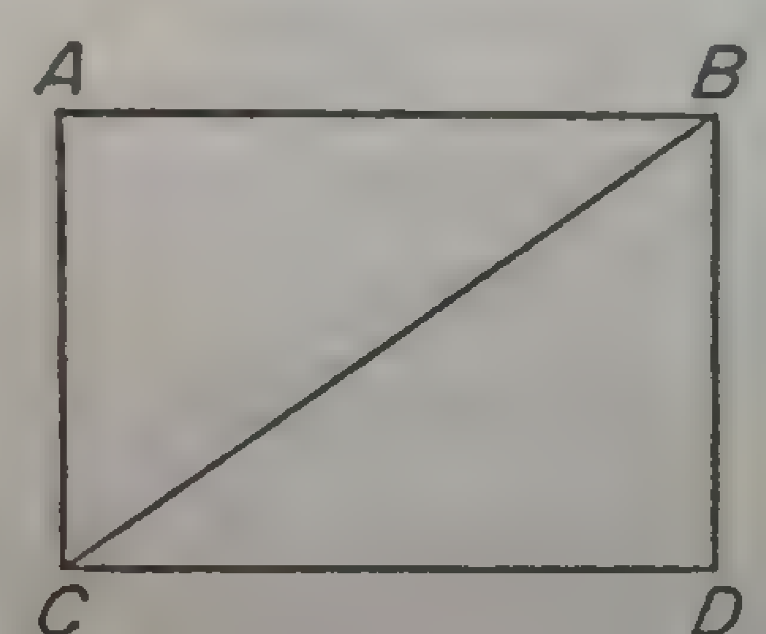
STATUS, POWER, AND INDUSTRIAL LEADERSHIP. Schell (*910*) conceived the status-power-coercive leadership dynamics in terms similar to ours. The higher-status member of an organization, Schell suggests, offers security, protection, and opportunity to the subordinate in turn for obedience and zeal. Roethlisberger (*877*) observed clearly the coercive influence associated with higher status in the industrial organization.

> Personal dependence upon the judgments and decisions of his superiors, so characteristic of the subordinate-superior relation in modern industry, makes the foreman . . . feel a constant need to adjust himself to demands of his superior and to seek approval of his superior. Everything that he does he tries to evaluate in terms of his superior's reaction. . . . In some cases this preoccupation with what the boss thinks becomes so acute that it accounts for virtually everything the foreman says or does and all his thinking about what goes on around him . . . (p. 287).

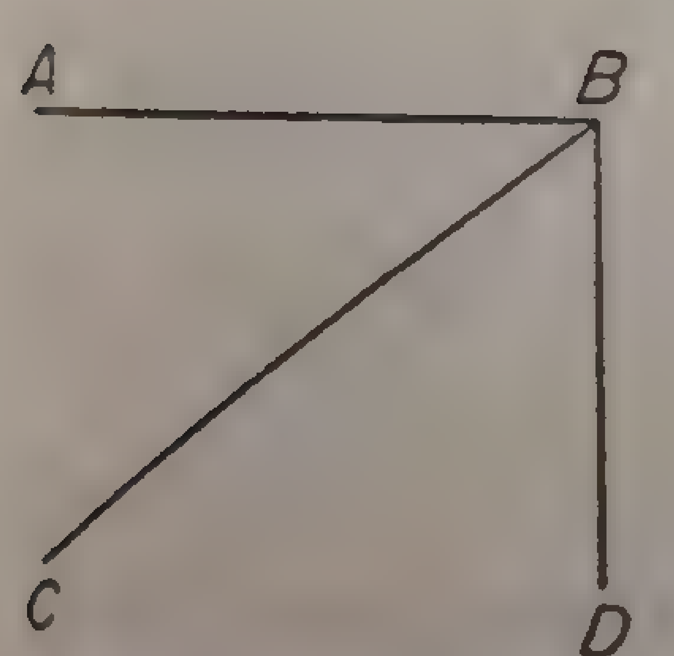
The power of the boss to influence his subordinate foremen was observed in several empirical studies. Foremen who said their bosses expected them to be considerate tended to describe themselves as more considerate leaders and were so described by their subordinates (Fleishman [*339*]). Similarly, Mann (*711*) found that foremen who changed more as a consequence of training in leadership received more encouragement from their superiors, expected greater personal benefit from training, felt more secure in their relations with their superiors, and perceived greater opportunity to try out new ideas on the job. Katz, Maccoby, and Morse (*595*) noted that supervisors in an insurance firm tended to model their own tendency to be coercive or permissive on whether their bosses were coercive or permissive. Again, in an unpublished analysis, the author found that the higher the rank in a sales organization, the more likely was a member to be nominated by the others as influential. Similarly, Jacobson, Charters, and Lieberman (*565*) found supervisors conforming to what they thought their boss expected of them.

STATUS, JOB INFORMATION, AND COMMUNICATION NETWORK LEADERSHIP. Shaw's (*938*) findings show that subjects whose positions were more centrally located in a laboratory communication network, and

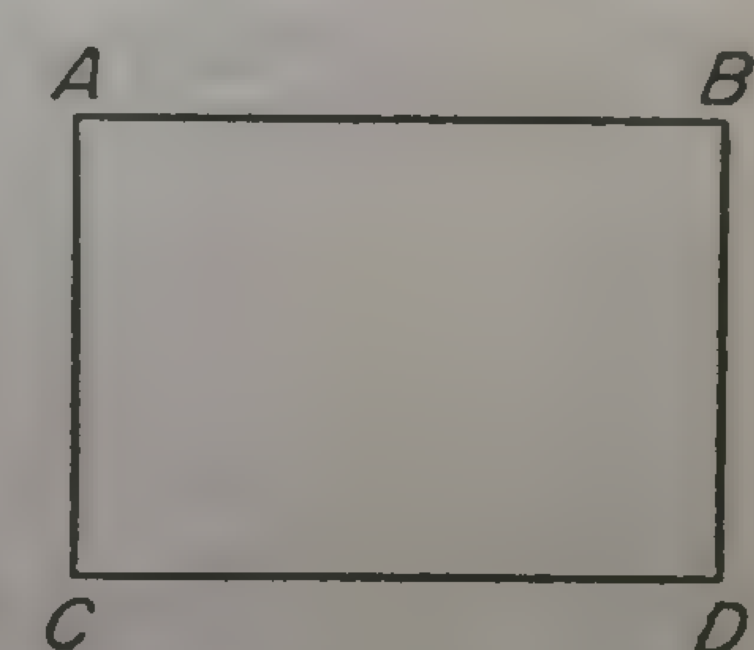
so had more access to the organization's channels of communication, were more likely to be selected as leaders. Increasing the amount of information available to a subject had a similar effect on the subject's leadership potential, but with some qualification, as noted by Gilchrist, Shaw, and Walker (*408*). If members differed greatly in access to communication channels, as in a "wheel" network where all other members communicated to only one centrally located member, actual leadership success was primarily due to the access of the centrally located member to the channels. But under somewhat less centralized networks, such as the "slash" or "circle" where two or more channels were open to several members as shown, members with positions giving access to more information, as such, showed an increase in success as leaders.



"SLASH" NETWORK



"WHEEL" NETWORK



"CIRCLE" NETWORK

STATUS SIGNS WITHOUT POWER: NO LEADERSHIP. If only the symbols or cues of status are held by an occupant of a position, except for the ritualistic, habitual responses of subordinates, the occupant will fail to succeed in leading those of lower status. Viteles (*1078*) comments that the foreman is the "forgotten man," since he was left only some of the symbols of status, but little control of his subordinates. Most relevant is a study of an electric utility company by Pelz (*813*), who found the power of supervisors to be a significant factor in determining whether a supervisor could change his subordinates' behavior in a desired direction. Supervisors who attempted leadership behavior failed to obtain changes in their subordinates if they, the supervisors, lacked influence with higher-ups; if they had no voice in decisions made by their superiors; if they lacked freedom from superiors' orders; and if

their salary was low. Supervisors with "influence upstairs" who made the same leadership attempts were more successful. Influential supervisors were seen by their subordinates as more able to obtain rewards (and punishments) for their subordinates and hence were more successful in their leadership attempts. Supervisors without the power to grant or deny rewards had the signs of status, the titles and the office desks, yet the signs were not accompanied by power; hence, such supervisors were less successful in leading their subordinates.

Torrance (*1050*) found that high-status members of temporary work crews were less likely to influence the group decision than high-status members in permanent crews. In temporary crews, status obviously carried less possibility of enduring opportunity to reward or punish.

POSITION IN SOCIETY AND LEADERSHIP

SEX AND LEADERSHIP. In a majority of cultures, the male position has higher status than the female, although considerable variation exists, ranging from those societies where men and women are almost equal in status, as is the case among the Arapesh, to those where the women are higher in status. For example, among the Tchambuli, the woman is dominant, the man less responsible and more dependent; the woman makes the choice; the man is chosen (Mead [*733*]). Strodtbeck (*1004*) contrasted three cultural groups within the United States —Navaho, Mormon, and "American"—by arranging discussions between husband and wives drawn from the three groups. Husbands were most likely to lead in discussions in the patriarchal Mormon culture where their status over women is notably higher and were least likely to do so in the discussions among Navahos, where women are traditionally more active and demanding.

Even among two different geographical regions presumably with the same general culture, differences in status and leadership appear. New York college girls reported "playing dumb" much more frequently when on a date than did West Coast college girls (Wallen [*1082*]).

CLASS, CASTE, STATUS, AND LEADERSHIP. Family, race, social class, and inheritance will enable individuals to display successful leadership behavior regardless of their ability and esteem. This most obviously occurs in any feudal society or society based on inherited wealth or a caste system. The Southern white is in a position to coerce the Southern Negro regardless of who he is personally and who the Negro is. If

Southern Negroes and whites are placed in a small group together, it is most probable that the whites will exhibit more leadership. Habitual deference toward whites, regardless of who they are, develops among Negroes, originally, to avoid punishment and conflict from failure to acquiesce to the more powerful white, or through parental persuasion. Later, even when the white's power is lowered, the habitual behavior may continue.

Hollingshead's (*531*) *Elmtown's Youth*—youth of a typical town of the American midwest—displayed leadership behavior as a function of the social class in Elmtown of their family. Again, the leaders of a Connecticut industrial town tended to be from wealthy families with "connections" (Smith [*965*]). The descendants of colonial merchants and statesmen, pioneering businessmen, mining and railroad tycoons of Philadelphia all went to school with one another, lived in fashionable neighborhoods where they worshipped in the Episcopal Church, joined the same clubs, intermarried, and eventually entered the élite class, playing a leading role in the community just as their colonial ancestors did (Baltzell [*51*]).

Similar findings were obtained by Sward (*1011*), Davis (*257*), Coates (*228*), Taussig and Joslyn (*1018*), and Sorokin (*969*). Sward noted that 50 percent of fathers of college leaders and only 29 percent of fathers of nonleaders were engaged in managerial or professional occupations. Large salary differences existed also. Davis found that only 19 percent of 163 Russian Communist leaders had peasant fathers, while only 21 percent had working-class fathers. Although peasants and workers made up 93 percent of the population, they furnished only 40 percent of the leaders of the Revolution; the remainder coming from higher classes in prerevolutionary society. Similarly, Taussig and Joslyn observed that the 70 percent of the fathers of 7371 American business executives were businessmen although they comprised only 10 percent of the working force. Likewise, Coates found top executives in a southern industrial community to come from the middle class while lower-echelon supervisors were drawn from working-class backgrounds. Sorokin noted that even labor leaders tended to be the sons of professional and business men. (This last tendency is changing with the increasing status of the working class in the United States.)

Stogdill (*988*) uncovered 15 studies "representing a wide variety of leadership situations" indicating that leaders tend to come from a

socioeconomic background superior to that of the average of their followers. In only two studies, those of Baldwin (*46*) and Goodenough (*420*), were differences negligible.

STATUS, ABILITY, AND LEADERSHIP. It may be that the child from the upper socioeconomic home is more likely to display leadership because of the greater likelihood that the home is democratic and permissive and provides him with the opportunity to develop skills and confidence in decision-making.

Sward (*1011*), Davis (*257*), and Taussig and Joslyn (*1018*) also point out the confounding of ability and status. Business and professional men's sons are likely to be more intelligent than average, for example, as well as more skilled and better educated. Leadership, at first glance attributable to status, may often be to some extent a function of ability and esteem. Thus, upper-class adolescents may more often become school leaders because they are somewhat higher in verbal aptitude compared to working-class students, for, regardless of the cause, most psychological studies indicate the existence of class differences in verbal aptitude. For example, even among a very restricted sample of 140 college sorority girls, a significant correlation of .21 was obtained between verbal aptitude as measured by the ACE linguistic score and socioeconomic status as measured by father's occupation, parental education, and religious affiliation (Bass, Wurster, *et al.* [*95*]).

STATUS, OPPORTUNITY, AND LEADERSHIP. Opportunity, as such, is most relevant in the status-leadership relationship. While ability demonstrated by degrees in engineering, law, or business administration provides avenues to success in business leadership, it also helps to marry the boss's daughter. Bird (*130*) has described how family opportunities affect leadership potential.

> Where the son of a poor man must often make his way by slow degrees and against odds, the equally capable son of a rich man finds positions held open for him, or made for him by parental influence or "pull."
>
> Economic disabilities probably curtail the number of students in competition for positions of leadership in colleges; leadership, in other words, is a luxury. Children of poor parents must spend time in self-support; consequently, they are not able to engage in many extra-curricular activities . . . [Moreover], quite often relatively uneducated persons do not . . . stress, in

the training of the child, the need for emulating great leaders (pp. 385–386).

It is common to read Horatio Alger stories in some of the popular news magazines describing the rise of a heroic-business tycoon from office boy to president; only at the end of the story is mention made that the hero's father owned the business.

STATUS AND MOTIVATION

The position controlling rewards and punishments is not enough to guarantee coercive or permissive influence. What is controlled must be needed by those controlled by the position before the position provides power, before the status accruing from the position results in power to influence.

CHANGING NEEDS. The influence of the businessman waxes and wanes with the business cycle. During prosperity he has heroic stature; during depressions, he assumes the status of a villain. During wars, hot or cold, the status of the military figure increases. When the country's need is one of pacifism, the military loses status. Hal Boyle, syndicated columnist, has quipped:

> Fashions in heroes change, just as women's styles do.
>
> In bad financial times the big hero is the politician who makes the most golden promises.
>
> In war times the military leader is top dog as long as he wins.
>
> But in boom times the hero is the industrial tycoon. He becomes an oracle consulted on all topics and it is assumed that, since he is smart enough to make a lot of money, he also must know how to cure warts and predict the weather.

CONSEQUENCES OF INDIVIDUAL DIFFERENCES IN NEEDS. The same amount of control from position may bring different amounts of power, depending on the personal needs of those who are controlled. In a study of the work adjustment of 80 counselees, Friend and Haggard (377) concluded that workers revealing antagonism toward their fathers, and inability to accept prolonged difficulty and gregariousness during childhood, "intensely favored 'fitting' with the boss as the chief means of getting ahead." For them, the boss could satisfy a need for a "good father."

Workers "intensely favored the receipt of special appreciation" from

their supervisors if they came from weakly unified, discordant families; families with sibling rivalry and low cohesion; and families where parents "played favorites." Counselees intensely favored "work where the boss takes a special friendly interest" when they came from unstable homes with extreme sibling rivalry which had led to feelings of rejection. On the other hand, workers favored being left alone and not closely supervised when they were free from illness, antagonistic towards their mothers, and had had better school experiences.

Using a modification of the **F** scale of authoritarian tendencies (Adorno [*6*]) to survey Philadelphia residents, Sanford (*902*) showed that when respondents have strong needs for submissions, they favor placing in a position of high status someone who will make use of his status to strongly direct them, give them material reward, and satisfy their special interests. On the other hand, nonauthoritarian or equalitarian personalities preferred placing men in high status who had the ability to help them solve ambiguous situations with which they had to cope. Similarly, Milton (*753*) found that authoritarian college students (as measured by the **F** scale) supported for President in 1952 the nomination of Douglas MacArthur, who appeared to emphasize power in leadership, while "equalitarians" supported the nomination of Adlai Stevenson, who seemed to emphasize the leader as problem-solver.

CHAPTER 15

ESTEEM AND LEADERSHIP

It is not necessary because you are a duke, that I should esteem you; . . . M. N.— is a greater geometrician than I; I . . . shall esteem him . . . [What is estimable is] the enlightenment of the mind, virtue, health and strength.

—PASCAL, On the Condition of the Great, (A.D. *1660*)

Pascal clearly distinguished between esteem, as noted above, and status, as indicated in his comments on the power of noblemen in the introduction to the preceding chapter. The distinction is a useful one, as shall be seen in this and the next chapter.

SIGNIFICANCE OF ESTEEM

Esteem is the value of a member as a person, his perceived potential to bring about rewards, avoidance of punishment, reinforcement, goal attainment for the group, regardless of the position he occupies. Recognition of differences in esteem among members is established in a natural group's history (Infield [*559*]; Sherif [*949*]) and increases in discrimination with age of the group (Lippitt, Thelen, and Leff [*676*]). Such differences are most critical in determining behavior in what Cooley (*237*) defined as a primary group. Such evaluations of adequacy as a group member are found among children as early as 8 years old or younger (Campbell and Radke-Yarrow [*190*]). As in the case of status, a member's esteem will involve ability as well as power. The member

with more personal ability regardless of his position will be more esteemed, since, through his personal ability to solve the group's problems, he can bring goal attainment to the group. The member with more personal power regardless of his position will be more esteemed, since he can directly give or deny love, friendship, security, or other rewards. If esteem is primarily due to personal ability, the member will be more successful in persuading others whenever he attempts to do so. If esteem is primarily due to personal power, the member will be more successful in coercing others. If esteem depends on both, he may be more successful as a permissive leader.

CONTRIBUTION OF ESTEEM TO STATUS. Although conceptually independent, esteem and status are positively correlated, for status is often gained through personal ability, competition, and effort. Persons likely to be esteemed because of their personal characteristics are also likely to obtain positions of great worth. Esteem often leads to status achievement (Pellegrin [*812*]). Promotion to higher status in industrial and military organizations often depends primarily on merit ratings by superiors of value to the organization. Yet a person may hold a valued position regardless of his abilities. He may obtain a position in a group because of seniority, sex, race, class, or political favoritism.

Often, what began as an informal group of members differing only in esteem becomes a formal organization of members differing in status. For example, a group of deputies from Brittany met informally at Versailles to discuss in advance parliamentary questions shortly after the opening of the States General in 1789. Soon deputies from other parts of France joined. The informal Club Breton followed the National Assembly to Paris, renting quarters on the Rue St. Jacques. The name, "Jacobin," at first one of ridicule, was adopted by the club and a formal constitution was drawn up with a rotating president, four secretaries, a treasurer, and an administrative committee.

The Rochdale Coöperative movement, started by an informal group of weavers, is another example of how an informal organization may grow into a formal one (Sherif and Sherif [*950*]). The transformation of the chief and his companions in the Indo-European tribe into a feudal hierarchy is still another example.

STATUS CONTRIBUTES TO ESTEEM. Status increases esteem. For example, esteem is higher for individuals with the status of owners and professional men in agricultural communities (Hooker [*540*]). Simi-

larly, prestige and popularity are higher for men who are heads of organizations in their communities (White [*1108*]). Again, merit ratings of the esteem of military officers are usually higher, the higher the rank of the officer and the higher the echelon in which his position is located (Robins, Willemin, and Bruekel [*869*]). Campbell (*185*) noted that in 7 out of 10 submarines, the commanding officer received the most nominations as the person others wanted to see in command. Again, a review of some officer efficiency ratings from 1922 to 1945 revealed a generally positive correlation between the rank of an officer and his graphic merit ratings (USA [*1064*]). More specifically, another analysis found that higher grades in service received more favorable combat performance ratings in Korea.

Sherif and Sherif (*950*) commented that when a leader's success springs from his position of control over the group's resources, he will be endowed with superior personal traits. Courtney, Greer, *et al.* (*243*) argued for the same point. They noted that recruits given the most responsibility and authority were most esteemed. At the same time, loss of position is likely to produce a loss of esteem. MacArthur's sad refrain about old soldiers just fading away is illustrative. Barnard (*57*) agreed that abilities will be imputed to persons of higher status even when the abilities cannot be recognized or judged to justify following the suggestions of the higher-status members. This, he suggested, is a way that low-status followers can maintain their own self-esteem. They rationalize that they are being persuaded by the suggestions of the most capable members of the organization rather than being coerced by mere status difference.

Consistent with these conclusions, Learned, Ulrich, and Booz (*641*) observed that executives tend to underestimate the capacity of their subordinates to assume greater responsibility.

Thus, since each contributes to the other, it is most common to observe a positive correlation between status and esteem in a group. This is what Flint, Bass, and Pryer (*351*) found in two-thirds of 34 laboratory groups examined.

But the values of status must be relevant to the values of esteem. For example, in a combat fighter squadron, class differences of the members in civilian life were unimportant in determining esteem in the squadron, for the squadron goals and activities toward those goals were completely different from the goals of the same members in

civilian life. It was of little consequence to the current goals of the squadron that members differed in the value of positions held in civilian life (Stone [*998*]).

This leads us to a more general consideration of the relevancy of esteem.

RELEVANCY OF ESTEEM TO GROUP GOALS

Aristotle pointed out that the "goodness" of the performance of a member of a society depends on the goals of the society. Fiske (*337*) proposed similarly that the rated value of a member of an industrial organization ultimately must be related to the goals of that organization.

Whether we esteem a member will depend on our goals. In a prison, a prisoner's esteem among his fellow inmates is enhanced by acts of violence, by homosexuality, or by psychoneurotic or psychopathic behavior. Others can release hostility toward their warders by identifying, by vicarious experience of the antisocial behavior exhibited by the esteemed member. First offenders and inmates making a good institutional adjustment find such vicarious aggression less rewarding and are therefore less likely to esteem the violent psychopath (Schrag [*915*]). In the same way, the more belligerent, antisocial boy is most esteemed among delinquents (Robinson, Cohen, and Sachs [*870*]). Palmer and Myers (*802*) showed that whether esteem relationships affected the performance of 40 radar crews of antiaircraft batteries depended on the criterion for evaluating other members. A measure based on choice of companion for off-duty had no relation to crew effectiveness, but measures of esteem for others in the battery did relate to crew effectiveness in locating targets.

College men and women differ in what they value in women. Thomas and Young (*1028*) found that men judges regarded beauty as most important in women, while women judges stressed the value in women of intelligence, cheerfulness, and helpfulness. While female judges emphasized the desirability in men of intelligence, considerateness, cheerfulness, and kindness, male judges also stressed intelligence and cheerfulness as well as common interests and congeniality.

The relativity of esteem is also evidenced by Hyman (*558*) who showed that judgments of a member's esteem vary depending on the group in which he is located or with which he is identified.

ESTEEM AND POPULARITY: A MATTER OF RELEVANCY TO GOALS. If the group is primarily a means of providing satisfying interactions, conviviality, good times, then the most likeable, friendly, sociable members should be the most valued. Popularity and esteem should be highly correlated. But if the members find solving complex task problems more rewarding than friendly interactions, the most popular member may be less esteemed than the member with greater abilities. However, since attaining task effectiveness by group effort usually requires considerable interaction effectiveness, popularity should still correlate with esteem. So popularity may contribute to successful leadership independent of esteem in this way: "If I like you, I will interact more freely with you, giving you the opportunity to influence me." This is in distinction to: "If I value you, I will more readily accept your influence."

The popular, but inept, member is likely to be listened to with some condescension. "Poor old Joe, he's such a nice guy, but . . ." Conversely, the disliked but capable member may be grudgingly accepted to some extent. William Allen White expressed this attitude toward F. D. Roosevelt. "God bless his gaudy guts!"

Following sociometric studies in boys' and girls' summer camps, Polansky, Lippit, and Redl (*833*) agreed that prestige factors are a better index of an individual's influence than mere popularity. Again, in 20 groups of three to seven men meeting four times in a laboratory setting, Slater (*957*) showed that popularity correlated only .41 with "value of ideas," only .38 with talking (attempted leadership) and .49 with "guiding" (successful leadership). But "value" correlated .75 with talking and .83 with "guiding."

Table 5 shows the results of an unpublished sociometric study of 203 salesmen of the same status by the author. In each division of an organization, all members nominated 7 others as "liked as a coworker." They also rejected 7 names. They repeated these nominations and rejections on "value to the company," "ability to solve the company's problems," and "influence." Each man's "score" was the number of his nominations less the number of rejections by others on each criterion. His "visibility" was based on the percentage of all men in his division who knew him. It can be seen that merely being liked was correlated highly (.50) with influence. But ability and value were both correlated more highly with influence (.68 and .74). Ability and popularity both

correlated more with value than they did with each other, suggesting that each contributed to value something independent of the other. Popularity differed from the other measures in its lack of relation with visibility.

TABLE 5. Median Intercorrelations Among Five Sociometric Ratings of 203 Salesmen by Their Associates

	Visibility	Popularity	Value	Ability	Influence
Visibility		–.05	.39	.38	.29
Popularity	–.05		.60	.49	.50
Value	.39	.60		.73	.68
Ability	.38	.49	.73		.74
Influence	.29	.50	.68	.74	

MEASURING ESTEEM

Esteem is gauged by some form of merit rating. The value of the member to the formal organization can be assessed by superiors', peers', or subordinates' evaluations and evaluations by associates in the informal organization. It can be estimated by outside observers. A member's self-evaluation may serve as a measure of self-esteem.

Of particular utility in the study of esteem in relation to leadership are sociometric evaluations in which all members of a group rate each other by voting, nomination, ranking, or check list.

CONSISTENCY OF PEER EVALUATIONS. Increasing stability of ratings with increasing age of campers was found by Newstetter, Feldstein and Newcomb (*785*). While esteem ratings among young children seem to lack consistency from one period to the next (Lazar [*639*]), Northway (*787A*) reported rate-rerate correlations of .8 to .9 when summer campers rerated each other a week after a first rating, and Bjerstedt (*133*) reported correlations of .82 between ratings and reratings four months apart among 867 Swedish school children 9 years and older. Even after 13 months, the rate-rerate correlation was .73. McGuire, Lanmon, and White (*697*) found similar consistency among adolescents from one year to the next. Even when half the children, aged 6 to 12, in a group are replaced with new members, the remaining children's esteem ratings are consistent to some extent with earlier ratings (Campbell [*187*]).

The rating technique does not matter much. Bjerstedt (*133*) obtained high correlations among esteem indexes based on simple choice, paired comparison, ranking, and rating scales.

Esteem for different groups or situations tends to increase in specificity with age. Bjerstedt obtained a correlation of .84 in choice of workmates and schoolyard companions among 9- to 11-year-olds. The correlation dropped to .74 among 12- to 14-year-olds.

A good deal of evidence suggests that esteem measures among adults are highly consistent. For example, a Horst reliability of .68 was obtained as an index or agreement among ratings by 2 to 17 ROTC cadets rating a total of 307 fellow cadets (*77*).

CONSISTENCY OF SUPERIOR'S EVALUATIONS. Likewise, a high degree of reliability appears in superiors' evaluations of subordinates if the rating errors of leniency and control tendency can be reduced through such methods as ranking, forced evaluations, or the discriminate binary method (Bass [*71*]). For example, in addition to published reports (Bass [*71*]) of internal consistencies of ratings averaging above .80, subsequent analyses disclosed that superiors' ratings correlated .59 with ratings made the following year by the same or other superiors.

Page (*800*) found that the overall evaluation of West Point cadets was fairly consistent from one year to the next. Again, Bass and Coates (*78*) reported that the mean merit rating of ROTC cadets by superiors correlated .53 from one year to the next despite the fact that many of the raters changed in the intervening period.

PEER VERSUS SUPERIOR. The extent superiors, peers, and subordinates agree in their ratings of the same members of an organization has been noted in a number of studies. Bayroff and Machlin (*103*), Page (*801*), and Bass and Coates (*77*) reported a high degree of agreement between the esteem ratings of military cadets by their peers and their instructors or tactical officers. Again, Bass (*71*) found a significant relation between peer ratings and superior's merit ratings of salesmen.

But subordinates' ratings are another matter. It is probable that while subordinates will esteem their immediate superior most if he is considerate, the boss of the superior will be more likely to value most the supervisor who gives evidence of the most initiative. The boss has less opportunity to observe consideration among his supervisors compared with his opportunity to observe initiative, is less likely to

emphasize it, and is less reliable in his evaluations of it. Peer ratings are likely to correlate more highly with superiors' and subordinates' ratings than the superiors' ratings correlate with subordinates' (*76*).

RELEVANCE OR VALIDITY OF ASSESSMENTS OF ESTEEM

How well do ratings of esteem reflect the actual worth of a member to his organization? The validity or relevance of merit and esteem ratings depends on who does the rating; on whether a variety of rating errors can be reduced; on the attitudes, coöperation, and training of the raters; on what is critical for being valued, etc.

ABILITY AND ESTEEM. Generally speaking, esteem or merit ratings are valid indicators of worth to an organization in the sense that they have been found related to some extent to such objective indices of worth to a group as intelligence or ability to solve the group's problems. Unpublished research by the author found merit ratings of salesmen by their superiors to forecast discharge, promotion, and sales volume. Bass and Coates (*77*) found correlations of .21, .38 and .11 between intelligence test scores and ratings of esteem in ROTC by superiors and by peers. Thorndike (*1030*) reported an estimated correlation of .60 between the intellectual ability and esteem of 305 males among European royal families. Listed in an objective peer evaluation scale for assessing esteem among Marine OCS cadets were such "ability" items as: well-trained, experienced, performs well before group, sound judgment, thinks quickly, exhibits imagination, well-educated, and fine athlete (Hoffman and Rohrer [*523*]). Similarly, among institutionalized girls, Jennings (*580*) found the "overchosen" to exhibit more ingenuity, planning, and organization. Tupes, Borg, and Friedman (*1061*) obtained an "administrative ability" factor in a factor analysis of peer evaluations of OCS cadets. The more esteemed members of Whyte's street-corner society were known for their resourcefulness and the past success of their ideas. Again, Zeleny (*1148*) found that cadets with exceptional ability in flying were more likely to be chosen as a flying partner. These esteemed cadets were also likely to be selected to be flight instructors by their superiors and were less likely to get into accidents. Likewise, Feinberg (*312*) noted that regardless of economic background, esteemed adolescent boys were higher in athletic and scholastic proficiency than those boys who were rejected by their peers. Winslow and Frankel (*1130*) concluded from an analysis that intel-

ligence at least equal to one's own was sought when choosing friends. But, as in the case of leadership and intelligence, Riley and Flowerman (*866*) suggested that esteem goes with being "smart, but not too smart; pretty, but not too pretty."

Demonstrations of ability or success in solving problems contribute directly to esteem. Gilchrist (*407*) found that persons became more attractive to others if they consistently succeeded rather than consistently failed on specified laboratory tasks. Again, Lippitt, Polansky, and Rosen (*675*) reported that previously successful leaders and those with more physical prowess in a summer boys' camp were most liked.

On the other hand, Hemphill and Sechrest (*503*) found no relationship between actual bomber crew effectiveness and their reputations for efficiency with their superiors.

ADJUSTMENT, CONFORMITY, AND ESTEEM. The esteemed member (although not necessarily the one with high self-esteem) tends to be somewhat better adjusted to his environment, to his group, to the rules and demands placed upon him, except among some delinquents where the reverse may be true. Jennings' (*580*) "overchosen" girls showed more emotional control, according to their housemothers, while the "underchosen" were rated more irritable, complaining, and resentful. Overchosen Swedish school children were found by Bjerstedt (*133*) to be better adjusted socially and to rate themselves as better adjusted on personality inventories. Following a survey of the literature, Northway, Frankel, and Potashin (*788*) concluded that esteem is highest in children who are not extremely shy or so aggressive as to interfere with activities of the group. Among adolescent boys, Feinberg (*312*) reported that the more esteemed were better adjusted in their relations with parents and teachers.

Winslow and Frankel (*1130*) noted that both men and women preferred their friends to be "able to take criticism," and to be "good sports." Bass, Wurster, Doll, and Clair (*95*) found the esteem of sorority women positively correlated with self-inventoried objectivity, friendliness, and coöperativeness. Mann (*712*) reported a low positive correlation between popularity and adjustment in 4 out of 5 of 38 analyses he reviewed. On all academic levels, Bonney (*144*) found that the skilled in acquiring friends were superior in emotional control, dependability, tolerance, and adaptability.

Naval recruits of low esteem were observed by French (*374*) to be

in sick bay more often, to tend toward neuropsychiatric difficulties, and to earn more demerits.

Those of high esteem are less likely to get into trouble because they are more likely to abide by the rules and standards of the organization or group to which they belong. Thus, if a group has a particular set of moral standards, a person conforming highly in conduct to such standards is more likely to be esteemed. Such a tendency was noted by Havighurst and Taba (*481A*), for example, who found that adolescents who conform best to the middle-class standards of the school, are most likely to be esteemed by their middle-class peers.

Before a new member can be accepted or esteemed by the other members of an established group, he usually must demonstrate that he will abide by the rules of the group and share its ways of behaving and its goals (Whyte [*1111*]; Thrasher [*1037*]; Merei [*738*]; Anderson [*22*]). Bonney and Powell (*145*) found that the highly esteemed children in sociometric analyses were more conforming and coöperative. Christie (*220*) observed that if a new Army recruit increased in acceptance of prevailing authoritarian attitudes he was more likely to be esteemed by his peers and superiors after six weeks in service. Similarly, Grossack (*440*) demonstrated that individuals who "typify the group norm" will be more esteemed than those rejecting or departing from it. He found that Negroes attracted to Negro activities and valuing the Negro race, as such, were more esteemed by fellow Negroes than those indifferent to Negro activities, rejecting Negroes, disliking Negro heroes, etc. Grossack's study suggests the psychological mechanisms involved which can be summarized as follows: "He who values the group I am attracted to and he who values what is valued in this group supports me in what I value and what I want. Therefore, I value or esteem him more than someone who rejects as valueless what is regarded as right, desirable, and proper in my group."

Sometimes, the tendency of the esteemed member to "conform" to group averages is an artifact. For example, it was found that eminent individuals today are much older than their predecessors (Lehman [*649*]). They thus conform to the rise in the age of the entire population. What this means is that eminent persons are people and most people are living longer. Both facts are significant for educational processes, increasing creativity, and other matters not considered here.

ESTEEM AND SIMILARITY. Davitz (*262*), Fiedler, Warrington, and Blaisdell (*328*), Furfey (*381*), Sampson (*900*), and Shapiro (*931*) have shown that we esteem those in a group whom we regard as most similar to us in attitudes, interests, and abilities. This will be discussed in detail in a later chapter. The result can be accounted for by assuming that a majority of people value or want to value themselves highly. Yet the minority of individuals who dislike themselves or have low self-esteem probably will tend to dislike or devalue others whom they judge as similar to themselves.

ESTEEM BY TRANSFER OR STIMULUS GENERALIZATION. Esteem can be gained independent of ability or personality. The status-esteem relation has been mentioned. The effects of generalization seem apparent in the case where a person gains esteem because of his similarity to former members with esteem. For example, today, without needing to imitate too closely Huey Long's political behavior, almost anyone in the Long family will be elected to political office in Louisiana if he chooses to run, despite the fact the popular Huey Long died in 1935. Currently, Earl Long, a brother, is governor; Russell Long, a son, is in the United States Senate; and George Long, another brother, was in the United States House of Representatives until his recent death. Only a sister has suffered political defeat.

Persons may gain esteem merely because of similarity to stereotypes or popular conceptions of esteemed or popular figures. The youthful-looking, gray-haired, handsome face reputedly is becoming a strong political asset in television campaigning. The use of propaganda to inflate the esteem of an individual is too well known to require discussion. Testimonials, transfer techniques, glittering generalities, and the like are commonly featured parts of political action.

Cortez capitalized during his invasion of Mexico on the Indian legends of Quetzcoatl, a white, bearded god, who would return from the East, to establish a new order. Esteem was gained from the perceived needs for a savior who would solve the Indians' problems and similarity to the mythological savior-hero-god.

Finally, esteem may develop through association with members of high status, by imitating them, adopting what they value, identifying with them, or even merely by being seen with them or being photographed in their company. It is regarded as of great value for a local

politician to be seen in a photograph shaking hands with the President or sitting at the same table with him.

RAISING ESTEEM EXPERIMENTALLY. Experimentally, it has been found possible to raise or lower the esteem of a neutral stranger merely by attaching to him some false cues (Asch [*33*]). The results depend on attitudes toward those cues. Kelley (*600*) introduced two persons to an audience, one as "warm," the other as "cold." The entire perception by the audience of the personality of the two was altered by the adjective used in introducing them. Similarly, Haire (*457*) gave each of 76 union representatives and 108 managers two pictures and indicated which was supposedly the "local manager of a small concern" and which photo was of the "secretary-treasurer of his union." Each label was attached about 50 percent of the time to each of the pair of pictures. Then the subjects were asked to describe the personality in the photograph using a check list. Managers regarded as more dependable the person in whichever photo had been identified as that of manager rather than the union official. Union members regarded the photos labeled as union officials as portraying more dependable men.

OTHER WAYS OF RAISING ESTEEM. Esteem may be raised by increasing the ability or knowledge of a designated member or other members' estimates of the designated member's ability. Andrews (*24*) cited the efficacy of providing the lower-echelon supervisor with as much information about policies and decisions as possible. "The fact that he has the answers will . . . enhance the supervisor's standing in the eyes of his men" (p. 12).

Torrance (*1046*) reported a tendency for members of survival school teams to increase significantly in esteem—desirability as a partner under survival stress—with an increase in tendency to be seen by fellow crew members as "helping us the most" and "keeping up morale." Another way was suggested by Whyte (*1111*) who noted that the leader can increase or maintain his esteem by making sure the group engages in activities at which he is most proficient.

The fascist agitator enhances his personal power, and hence his esteem, by stressing his narcissistic heroics, potential martyrdom, toughness, and threats of aggression. He is most successful in raising his esteem in the eyes of those whose needs for security, power, and material rewards can be satisfied by identification with the agitator.

ESTEEM AND LEADERSHIP

We are now in a position to formulate the principles relating esteem to leadership in more detail. The more esteemed member can be more persuasive if his esteem depends on his being perceived as able to solve the group's problems. He can be more coercive or permissive if his esteem depends on his personal control of what is desired by others in the group. Also, as argued earlier in the case of status, the more esteemed member will attempt more leadership.

ESTEEM, ABILITY, AND PERSUASION. If esteem depends primarily on ability, then the esteem-leadership dynamics may be described by means of the following statement: "I esteem or value you and what you know or say or can do. I will accept what you suggest since you know how I can attain my goals or avoid punishment."

ESTEEM, POWER, AND COERCION. Moreno (*762*) was one of the few investigators cognizant of the coercive possibilities of esteem. He noted that the lower the sociometric status (i.e., esteem) of individuals, the more they are exposed to injury from the more powerful members of a group. If esteem depends primarily on personal power, then the esteem-leadership dynamics may be described in this way: "I value you and what you can give me—affection, self-esteem through association with you, security, vicarious satisfaction by identification, pleasant interactions, material rewards, and avoidance of punishments. Although I may not privately accept what you say, I will publicly agree with you so that you will grant me what I want from you."

This must be qualified, for continued use of power to coerce by the esteemed member will cause him to lose his esteem. Continued coercion will produce resentment (Van Delden [*1071*]; Frank [*359*]). In an experiment, J. P. R. French and J. Gyr (*560*) found subjects less attracted to leaders who assessed monetary fines. Similarly, numerous earlier investigators, such as Hanfmann (*474*), Jennings (*580*), Broich (*164*), and Caldwell (*183*), found that domineering individuals emphasizing coercive leadership were likely to be rejected in school and voluntary groups. In the same way, the most disliked features of service in the armed forces, according to surveys of veterans, were the caste system, use of coercion, and regimentation (Orlans [*795*]).

Thus, the statement of the dynamics should be qualified as follows: "If I must continue to inhibit my own opinions in order to comply with

you, I will begin to value you less, to dislike you and eventually reject you, for you will lose your esteem and value to me if you continue to coerce me."

Thus, we suggest that a member with continuing esteem will more likely exhibit persuasive or permissive leadership rather than coercive leadership or else he will gradually lose his esteem. (This may partly account for the fact that while 20 percent of servicemen in the United States would like to have seen General Douglas MacArthur, an outstanding authoritarian, as a candidate for President, only 14 percent favored him in his own Pacific theater of operations. An equally esteemed wartime hero, General Eisenhower, according to most accounts exhibited much more permissive leadership. While he was favored by 30 percent at home, in his own, the European theatre of operations, he was favored by 33 percent of servicemen [Orlans (*795*)].)

RELATED COMMENTARY ON ESTEEM AND LEADERSHIP

Moreno (1934) suggested that the higher the esteem of a group member the greater will be the volume of words expected and accepted from him by other members. He will be permitted more frequently to assume the initiative and to terminate activities.

More generally, Bird (*130*) concluded that "leadership must reflect the esteem to which the candidate is held, or the merits which are imparted to him . . ." Similarly, Homans (*537*) remarked that those of "higher social rank" in a group initiate the interaction. Again, Lazarsfeld, Berelson, and Gaudet (*640*) argued that the influence on opinion of personal contact depended on trust in esteemed persons. Similarly, Van Delden (*1071*) commented that we are more likely to agree with those we like personally. Because of the strength of the esteem-influence phenomenon, Rosenthal and Frank (*888*) argued that the efficacy of psychotherapy may depend mainly on the extent to which the patient has confidence in the therapy and therapist. This possibly may explain why psychotherapy has been less successful among the lower socioeconomic classes. The same argument may be applied to the teacher-student relationship. The amount of student learning in a classroom is probably strongly influenced by the extent of the students' esteem for the teacher. Illustrative is the following: A young instructor was reviewing test results with an elementary psychology

class. He asked those in the class to raise their hands who had indicated on the test that very bright children were shorter, less physically adept, and more maladjusted than children of average intelligence. When the one student who raised his hand was reminded that an entire hour had been devoted to discussing the evidence that the opposite was true and the reasons for the misconception, he responded, "Yeah, I know, but I just didn't believe you!"

ESTEEM AND SUCCESS IN INITIALLY LEADERLESS DISCUSSIONS

Bass (*64*) has enumerated 17 correlational analyses between leaderless discussion performance and esteem in real life as estimated by merit ratings. Table 6 also shows when and how the ratings of merit were obtained. Although these results are similar to those described in Table 3 of Chapter 10, they concern esteem and leadership success during a situational test, while Table 3 concerns real-life leadership performance or rated potential as a leader and leadership success during a situational test. The median correlation was .39 and was raised to .51 when only the 7 cases in which correction was made for the unreliability of esteem ratings were considered. As shown in Table 6, success as a leader of an initially leaderless discussion has been found moderately related to merit or esteem as an ROTC cadet officer (Bass and Coates [*78*]), sorority or fraternity member (Bass and White [*91*]), (Bass, Wurster, *et al.* [*95*]), industrial supervisor (Wurster and Bass [*92, 93*]), civil service administrator (Arbous and Maree [*29*]; Vernon [*1077*]), shipyard foreman (Mandell [*710*]), foreign service administrator (Vernon [*1077*]), and OCS cadet officer (Weislogel [*1095*]).

Subsequent to this enumeration by Bass, similar findings were reported with British supervisors (Handyside and Duncan, [*473*]), Finnish foremen (Raino [*845*]), and military trainees (Gleason [*410*]).

A positive relation was also found between discussion members' esteem ratings of each other and an objective measure of the extent each successfully led the others in initially leaderless discussions. The objective measure used was as described in Chapter 6 (Bass, 1955).

ESTEEM AND SUCCESS AS A MILITARY LEADER

During and since World War II, peer ratings of esteem by OCS cadets or West Point cadets have been found the best single predictor of subsequent success as a regular Army officer (Haggerty, Johnson,

TABLE 6. Correlation Between LGD Performance and "Real-Life" Esteem as Estimated by Merit Ratings Based on "Real-Life" Performance

Subjects	Leadership Tested with:	Estimate of Esteem	Raters	When Esteem Data Collected in Reference to Leadership Test	Correlation
1. 100 Army ROTC cadets	Equal status associates	Rated merit as a cadet and officer	Campus cadet and tactical officer superiors	6 months before	.51[a]
2. 96 Army ROTC cadets	Equal status associates	Rated merit as a cadet and officer	Campus cadet and tactical officer superiors	6 months after	.44[a]
3. 85 Army ROTC cadets	Equal status associates	Rated merit as a cadet and officer	Summer camp tactical officer superiors	9 months after	.53[a]
4. 55 Air ROTC cadets	Equal status associates	Rated merit as a cadet and officer	Campus cadet and tactical officers	6 months before	.68[a]
5. 52 Air ROTC cadets	Equal status associates	Rated merit as a cadet and officer	Campus cadet and tactical officers	6 months after	.65[a]
6. 167 Army and Air ROTC cadets	Equal status associates	Rated merit as a cadet and officer	Peer associates	Year after	.38
7. 46 fraternity members	Equal status associates	Nominations for positions of leadership	Peer associates	Week before	.44

8. 65 fraternity pledges	Strangers	Nominations for positions of leadership	Peer associates	6 months after	.47[a]
9. 140 sorority members	Strangers	Nominations for positions of leadership	Peer associates	Same time	.39[a]
10. 168 administrator trainees	Strangers	Potential capacity as administrator	Superior associates	Year after	.50
11. 84 shipyard foremen	Equal Status associates	Adequacy of foreman	Superior and peer associates	Not specified	.29
12. 123 foreign-service personnel	Strangers	Suitability in foreign service	Superior associates	2 years after	.33
13. 202 civil-service administrators	Strangers	General merit as administrator	Superior associates	2 years after	.36
14. 131 oil refinery supervisors	Associates of varying status	Merit as supervisor	Superior associates	1 month to year before	–.06
15. 48 uncoached college students	Strangers of the same sex	Nominations as leader	Associates	1 to 4 weeks before	.00
16. 35 coached mixed college students	Strangers of the same sex	Nominations as leader	Associates	5–7 weeks before	.33
17. 323 Air Force candidates		Rated merit as a cadet and officer	OCS peers and faculty		.23

[a] Corrected for criterion unreliability and/or for between subsample variations in criterion means and variances.
SOURCE: B. M. Bass. The leaderless group discussion. *Psychol. Bull.*, 1954, *51*, 465–492.

and King [*454*]). For example, a correlation of .51 was obtained between esteem among peers in West Point and rated success as an infantry officer 18 months later. A correlation of .42 was obtained between esteem in OCS and combat performance as an officer (Baier [*40*]). Similar results were reported for the Marine Corps (Wilkins [*1119*]; Williams and Leavitt [*1124*]) and Air Force (USAF [*1067, 1068*]). Campbell (*185*) found esteemed naval officers to be described by their subordinates as more likely to organize, initiate, and exhibit consideration and less likely to dominate or prod the men to produce. (This result conforms to our qualification about esteem and coercion; namely, that if an esteemed member continues to coerce, he will lose his esteem unless the resulting hostility can be displaced on another target. Thus, we are less likely to find a positive relation between esteem and coercive leadership while we are more likely to find esteem related to success as a persuasive or permissive leader.)

ESTEEM AND LEADERSHIP AMONG CHILDREN. Reviewing the studies by Ackerson (*4*), Bellingrath (*110*), Garrison (*386*), Nutting (*790*), and Tryon (*1060*), Stogdill (*988*) reported correlations ranging from .23 to .82 between leadership and popularity, admiration, or prestige. For example, Garrison (*386*) found a correlation of .82 between the tendency of high school seniors to be chosen as leader and their tendency to be admired. Again, Jennings (*581*) found the "overchosen" compared to the "average chosen" sociometrically in a girls' institution to exhibit four times as much behavior "making new events happen" or "enlarging the extent of activities." And, according to Lippitt, Polansky, and Rosen (*675*), those boys who gained in popularity because of their earlier success as leaders became more directive.

EXPERTS AND INFLUENCE. Experimental evidence strongly supports the conclusion that we tend to accept readily the influence attempts of those whom we esteem as experts. As early as 1921, Moore (*758*) observed that students would shift their judgments (about linguistic, ethical, and musical matters) on a retest in the direction of what they were led to believe by the experimenter was the opinion of experts. Marple (*717*) found the effect for social and political judgment to be greatest among high school students, less among college students, and least among adults, although even with adults the effect was marked.

Burtt and Falkenberg (*179*) found clergyman experts particularly potent in influencing religious attitudes. Again, Mausner (*727*) ob-

served that when students took the Meier Art Judgment test a second time, they exhibited a strong tendency to shift to wrong responses suggesed to them by partners introduced as art experts.

FURTHER EVIDENCE ON ESTEEM AND LEADERSHIP

Walter (*1083*) showed that subjects would shift their autokinetic judgments in the direction they were told had been taken by students at a school the subjects esteemed highly. And Lanzetta (*633*) observed that the more students esteemed their instructors, the more their opinions would coalesce with their instructors'.

A series of studies by Hovland and coworkers have demonstrated how the extent a subject values the source of propaganda determines his tendency to accept or reject it. Unfortunately, he is likely to forget the source faster than the propaganda. If this occurs, he may accept propaganda he would have rejected if he had remembered the source. If his memory about the source is refreshed, he will once again accept or reject the influence attempt according to his evaluation of the source (Hovland and Weiss [*548*]; Kelman and Hovland [*606*]).

Examining 72 business and government conferences, Crockett (*249*) noted that emergent leaders were rated by other members as needed by the group. Brim (*162*) found that mothers changed toward more permissive child-rearing practices the more they esteemed the physician who had suggested the change. But the prestigeful doctor was not enough to sustain the new behavior. It required their husbands' approval, support, and reinforcement of the suggested future satisfactions to be expected as a consequence of the change.

MUTUAL ESTEEM, ATTRACTIVENESS, AND EFFECTIVENESS

If I value you and you value me, then it seems self-evident that we are *attracted* to each other. Hence, the extent each member esteems all the others in his group relates highly to the extent each member values the group as a source of reward; the extent each member expects rewards from the group; or the extent each member is attracted to the group, as a group. Mean or mutual esteem in a group is closely associated with its attractiveness.

But although highly correlated with attractiveness, mutual esteem

is not synonymous with group attractiveness. For example, among 100 B-29 air crews' self-ratings Berkowitz (*118*) obtained some crews in which "everyone can be counted on to get the job done" but where there was a strong preference to be transferred to another crew. The reverse was also found among a number of crews.

As proposed in Chapter 4, attractiveness is conducive to group effectiveness. It follows that mutual esteem is also conducive to group effectiveness. Moreover, in the same way that continued ineffectiveness reduces a group's attractiveness, we deduce that continued ineffectiveness reduces the extent members of a group will esteem each other.

MUTUAL ESTEEM AND ATTRACTIVENESS

Both Freud (*376*) and Moreno (*762*) emphasized the significance of mutual esteem to group attractiveness. Moreno, for example, suggested that the more members esteem outsiders rather than each other, the more likely is the group to dissolve.

Some indirect empirical evidence is available concerning how mutual esteem relates to attractiveness. Sherif and Sherif (*950*) found that the mutual esteem increased among boys in a group if they shared common goals and worked in coöperation toward them. Willerman and Swanson (*1123*) reported that the higher the prestige of a sorority as a whole, the more attractive it was to its members.

In a direct examination of the relationship among 51 decision-making groups, Flint, Bass, and Pryer (*350*) found that mutual esteem and group attractiveness exhibited an average correlation of .75. In groups of low motivation, the correlation rose to .90, while in groups of high motivation the correlation was .62.

MUTUAL ESTEEM AND GROUP EFFECTIVENESS

Moreno (*762*) focused attention on the contribution of mutual esteem to group effectiveness. For example, he suggested that the outstanding single factor determining the success of group psychotherapy was the extent members chose or valued each other. Reviewing the subsequent sociometric literature from 1937 to 1947, Loomis and Pepinsky (*678*) noted that an assumption of sociometry is that a social group is effective in proportion to the members' spontaneous acceptance of each other as collaborators. Beaudry (*104*) presented the same argument concerning the effectiveness of work groups as did Roby (*874*)

in discussing the assembling of work crews to maximize their effectiveness.

The converse was also discussed by Whyte (*1113*) that when members' interactions with each other yield less goal attainment, they will grow to like each other less.

MILITARY EVIDENCE. Greer (*434*) noted that infantry squads were more likely to do better in simulated combat when members mutually esteemed each other and Roby (*873*) obtained a low positive correlation between rated effectiveness by superiors of medium bomber crews on training missions and the extent members esteemed each other according to sociometric analyses. Haythorn (*488*) reported the same results for combat effectiveness of such crews. Similarly, Torrance *et al.* (*1051*) found that the combat effectiveness of B-26 crews was forecast by the mutual esteem of members for each other during survival school. Again, Berkowitz (*118*) observed that when mutual esteem was high among B-29 air crews members were much less likely to abort training missions.

OTHER EVIDENCE. Jennings (*579*) showed that group satisfaction and effectiveness were increased in a training school for girls by rearranging the groups so that girls associated with others according to mutual selection. Also, Van Zelst (*1075*) contrasted the productivity of carpenter and bricklayer teams where members chose their work partners and where partners were assigned arbitrarily. He found that labor and material costs reduced significantly, as did turnover, when teams were assembled by mutual choice. The effects were far greater than any of the industrial engineering changes that had been attempted previously. Again, Maller (*708*) reported that groups "constituted by the children themselves" were more effective in competition with other groups and arbitrary class assemblages. Similarly, Heyns (*515*) found that three-man conferences of Veterans Administration clinicians reached the most satisfactory decisions when the members "liked each other" and "had high prestige for each other."

MUTUAL ESTEEM AND CONFORMITY

Since conformity is greater in more attractive groups (Chapter 13), and mutual esteem correlates highly with attractiveness, it follows that acceptance and conformity to group decisions, modal opinion, or norms of behavior, should be greater among groups where mutual esteem is

high. Thus, Thelen (*1023*) suggested that the power of a group depends on the extent mutual influence is helpful.

SELF-ESTEEM AND LEADERSHIP

THE ARGUMENT. Let us substitute "self-esteem" for "sees himself as able to solve the group's problems." That is, a member will value himself to the extent that he has confidence in his capabilities to aid the others and himself in achieving mutual satisfactions or group goals. Then, what was said earlier about ability, development, and transfer of leadership can be expanded to include the effects of self-esteem. The leader effective earlier values himself more highly than earlier ineffective or unsuccessful members placed in a new similar situation. Also, the member who has demonstrated to himself the ability to cope with the group's problems is likely to esteem himself more, providing the new situation is not too different from the one in which he has displayed success. Such a member will tend to attempt more persuasive leadership. He will be successful to the extent that other members share his opinions about his esteem.

Moreover, since being esteemed has been shown to produce success as a coercive leader, a member that gains satisfaction merely from being a successful leader will, if he is high in self-esteem, attempt to coerce others. Again, such a member actually will be successful to the extent that others share his opinion about his personal power to grant security, love, and support to others.

These dynamics were described by the OSS Assessment Staff (*798*) in a more general way. A member who cannot do what is expected of him is likely to be criticized by his coworkers. This reduces his self-esteem, resulting in a corresponding impairment in his social relations. On the other hand, successful performance followed by approval enhances his self-esteem and results in more gratifying social relations.

SELF-ESTEEM AND EARLIER ABILITY. In an unpublished paper, Gerard reported that the more successful an individual's past group experience, the more favorable was his subjective estimate of future success in groups. Bass (*69*) found a correlation of .41 between self-esteem after six brief discussions and previous public success as a leader during the discussions, according to objective leadership assessment. The corresponding correlation was .24 for previous private success as a

leader. The higher correlation between self-esteem and earlier public success rather than private success conforms with Stotland's (*1000*) observation that self-esteem is reduced by failure more when the failure is known publicly, especially by relevant esteemed experts, than when no one else knows. Demonstrated inability or failure is also likely to reduce esteem, particularly when the unsuccessful performance is important to the group and the failing member is attracted strongly to the group (Rasmussen and Zander [*846*]; Festinger, Torrey, and Willerman [*325*]). Furthermore, Gibb, Smith, and Roberts (*405*) showed that the effect on the self-concept of such earlier feedback of information about one's success or failure or how one impresses others in the group appears to generalize to new groups.

SELF-ESTEEM AND RESISTANCE TO CONFORMITY. The person with high self-esteem appears more likely to change others, to lead others, rather than to be changed by others or to conform readily. Both Thorndike (*1033*) and Hochbaum (*522*) have found that the more able or more self-confident member was more likely to resist conforming to the group. Similarly, Maslow (*725*) constructed a test of self-esteem for women and found that it correlated .71 with unconventional sex attitudes,—.66 with virginity and .41 with tendency to masturbate. He also found that the higher the women's self-esteem according to interview analyses, the less conventional and the less modest they were concerning nudity.

SELF-ESTEEM AND LEADERSHIP. In a more specific examination of the propositions advanced concerning self-esteem, attempted and successful leadership, a correlation of .38 was found between self-esteem after six discussions, and attempted leadership during the next six brief problem-solving sessions. And since others are not likely to share completely one's self-esteem estimates, the correlations between self-esteem and objective success as a leader subsequently were only .17 and .18 for a total of 95 subjects (Bass [*69*]). In another study of attempted leadership, Hemphill and Pepinsky (*500*) found attempted leadership higher among subjects who felt personally accepted or esteemed.

Reviewing 17 studies of the relations between self-esteem and more general and varied assessments of successful leadership, Stogdill (*988*) concluded that "leaders rate higher than their followers in self-confidence and self-esteem." Cowley (*246*) found self-confidence to be common to criminal, military, and student leaders. Unpublished find-

ings by Trent noted that elected leaders were more likely to vote for themselves on "who will make the best leader." Wilson, Beem, and Comrey (*1126*) noted that effective supervisors particularly tended to be more self-reliant. Self-confidence marked group leaders, according to Zeleny (*1147*). Again, Maslow (*722*) observed in interviews that college women with high self-esteem (but not too high) were more likely to be leaders. Likewise, Oettel (*793*) found on personality scales that leaders were higher in self-assurance and self-confidence. Richardson and Hanawalt (*860*) obtained similar results using the Bernreuter Personality Inventory, but Hunter and Jordan (*554*) and Remmelein (*855*) did not find that the Bernreuter self-confidence scores differentiated between leaders and nonleaders.

Positive correlations between self-esteem and leadership also were reported in separate investigation by Bellingrath (*110*), Drake (*282*), Webb (*1092*), Cox (*247*), Buttgereit (*180*), and Moore (*760*).

SELF-ACCORDED STATUS AND LEADERSHIP. The same arguments advanced for expecting self-esteem to produce attempted and to a lesser extent successful leadership are applicable to self-accorded status —self-estimates of the value of one's position. Guetzkow's (*443*) analysis of the key man's rating of his own importance to a communication network is a rare example of examining self-accorded status in the laboratory, although sociological analyses are not hard to find. For example, Gold (*413*) discussed the implications to tenant-janitor interaction in a multiple dwelling of the janitor's concept of his own status as he tends to adopt "professional standards" when he begins earning a higher salary than some of his tenants.

No specific empirical investigations have been found relating self-accorded status and leadership, although the matter is readily open to study. Indirectly related is Pepitone's (*816*) finding that the more important a member regarded his position, the more productive he was.

CHAPTER 16

CONFLICT

Jove fixed it certain that whatever day
Makes man a slave, takes half his worth away
—Ancient Greek Saying

Leadership may fail or become ineffective when it should have succeeded or been effective according to what has been discussed so far. For example, while extreme status differentiation produces successful leadership, as noted in the Greek adage, the value of the overall performance of the person whose status has been lowered may decline. The ensuing coercion may be successful, but may suffer in effectiveness because of the resentment aroused by loss of status, because of the likely unequal distribution of rewards for group success, and because the energy expenditure demanded by coercive leadership may not be balanced by the rewards for compliance. Moreover, as noted in Chapter 12, punishment for noncompliance may lead to further resentment and pseudosolutions, such as displaced aggression, withdrawal, and apathy, rather than compliance.

Conflicts in the leadership process, in failure of attempted leadership that ordinarily would have succeeded because of the power or ability of the would-be leader, may primarily involve aspects of the potential follower, the would-be leader, or the interaction of leader and follower. For convenience, we will first examine what makes the potential fol-

lower reject attempts to influence him that are ordinarily likely to succeed. Next we will consider those characteristics of would-be leaders that tend to thwart successful leadership, despite their ability and power. Finally, attention will be focused on attributes in the interaction between members likely to produce aborted leadership when success would have been expected.

THE POTENTIAL FOLLOWER AND LEADERSHIP CONFLICT

PRECEDING EVENTS

What has happened to the potential group of followers prior to the attempt to lead them may result in their rejecting the attempt which they ordinarily would have accepted. Pfiffner (*820*) suggested that often the would-be leader in an organization is a victim of stereotyped attitudes (or stimulus generalization) toward all occupants of his position based on the group's experience. Before he can succeed as a leader, he may have to convince his subordinates that he is "not out of touch with operating problems," and that he is interested in their welfare. Preceding or concurrent events outside the group of followers about which the would-be leader can do nothing also may result in the failure of his attempts to lead. Roethlisberger and Dickson (*878*) commented on how worker anxieties over possible loss of work during the business depression led to reduced output in a mica-splitting room. Again, a foreman may fail because of earlier company policies or previous union-management conflicts currently irrelevant to his attempts to lead his own subordinates. Similarly, a would-be leader is less likely to succeed if his attempt follows earlier attempts by others to move the group in an opposing direction. Thus, negative arguments introduced before an attempt to persuade students to volunteer for civil defense work were found more likely to reduce the success of the positive arguments than if the negative arguments came later (Feierabend and Janis [*309*]).

Another preceding condition determining the success or failure of a subsequent attempt to lead is the extent to which the attempted leadership fits with previous experiences and tendencies aroused by these experiences. Weiss and Fine (*1098*) found that groups subjected to "failure-insult" experiences and presumably frustrated were more in-

fluenced by suggestions to be punitive, while groups earlier subjected to rewarding experiences were more likely to respond to suggestions to be lenient.

An attempt to change a self-confident group, a group which has demonstrated task success, is likely to meet with more resistance than attempts to change a group still searching for solutions to its problems. (This is another way of stating the relations between problem difficulty and the amount of leadership required by the group discussed in Chapter 7.) Thus, in a previously cited work, Mausner (*729*) showed that "Ss with a past history of positive reinforcement in a given type of judgment are less influenced by their partners in a group judgment situation than Ss with a history of negative reinforcement" (p. 68).

Resistance to attempts to lead has been found greater among potential followers who were able to develop mutual support for each other prior to further attempts to coerce them (see Stotland's [*999*] experiment described in Chapter 12).

Thus, preceding conditions such as the past history of success or failure of the potential followers, earlier conflicts with authority, previous subjection to opposing arguments, and earlier opportunity to organize resistance to change determine whether a current attempt to lead will be accepted or rejected.

CONFLICTS IN MOTIVATION

Conflicting motivation to resist or accept suggestions may result in rejecting otherwise successful attempts to lead. In Chapter 8, the withdrawal tendencies of hospitalized neurotics and psychotics were noted—such tendencies are likely to result in a rejection of attempts to influence. If the followers are self-oriented, satisfaction with group success may be low despite the otherwise adequate leadership attempts. For example, Fouriezos, Hutt, and Guetzkow (*356*) noted that conferences with a high degree of self-oriented motivation among the members were less satisfying to their members. Members were less favorable toward the meeting and the chairman, were less productive, saw the group as less unified, and exhibited more conflict.

The foreman-in-training is often caught in a conflict of motives when his boss is opposed to what the foreman is being taught by the trainer. The success or failure of the trainer depends on the trainee's boss. The trainer is much more likely to succeed in modifying the be-

havior of the foreman if the foreman's boss shows interest in the program, participates in its development, and takes the course first (Mahler [*701*]). Thus, Fleishman (*339*) found that the foreman to whom it was suggested during a human relations training program that he should become more considerate of his subordinates accepted or rejected the suggestion depending on whether he saw his own superiors expecting and supporting such changes in him.

EXCESSIVE ENERGY EXPENDITURE. A conflict in motivation may arise in that the energy expenditure required of the follower to comply with the attempted leadership is in excess of the promised reward. The reward does not match the effort required to obtain it. Willerman (*1121*) points out that as a member becomes less involved in the group's success, he complains less about obstacles to such success and more concerning demands for expending his time and energy. Bass, Gaier, and Flint (*84*) observed this effect. They found that ROTC cadets strongly motivated to enter advanced training complained more about the difficulty of a test screening applicants, while those low in motivation complained more about having to take the test.

The more costly in energy expenditure a new follower behavior suggested by an attempted leadership act, and the more energy required to learn or to change to the new behavior, the more likely the attempted leadership act to be aborted. Two opposing factors—the potential reward (or avoidance of punishment) and the required energy expenditure of a new suggested mode of group behavior—must be considered in determining whether a leadership act will be successful or aborted. The need for energy expenditure to be commensurate with gain is indirectly illustrated by Stouffer, Suchman, *et al.* (*1001*), who found that an Army company was likely to be of high morale (and the leadership more effective and hence more successful) when "a fair share of off-duty time is given men" and "best use is made of training time." An extreme example of a leader being rejected because of an "energy expenditure—lack of reward" conflict was the case of a union president of iron ore trimmers sent to negotiate a pay scale for the coming season. Instead, he involved his men in a deal to transfer them to a new union, a plan that would have resulted in the men having to trim ore for less than the pay scale acceptable to them. He was assaulted and severely beaten when he tried to put his plan into effect (Holbrook [*527*]).

DISTRIBUTION OF REWARDS. Conflicts may arise from the distribution of rewards. What ordinarily would reward a member and obtain his compliance may be rejected when he sees another member earning more for similar compliance. Freud (*376*) recognized the importance to maintaining successful leadership, of a fair distribution of the leader's love and affection to all the members of the group and a renunciation of favoritism. Again, Dyer, Lambert, and Tracy (*293*) observed that in the more effective of two bomber wings (where more successful leadership was likely), more favorable attitudes existed toward the method of "allocating rewards and punishments."

Cattell (*205*) listed possible patterns of distribution of rewards, any one of which may produce conflict and the failure of otherwise successful attempts to lead. If the reward is distributed equally, then those expending the most energy or doing the most for the group may be most dissatisfied. If the rewards are commensurate with effort or demonstrated ability, then those earning less may complain of unfair treatment. Random, haphazard sharing may also be unsatisfactory to those profiting least. Aesop's (*7*) "lion's share" is illustrative of another possibility: A lion and a wild ass were hunting coöperatively. The lion used his strength and the ass his speed. When they had caught a number of animals the lion divided the catch into three portions. Said the lion, "I will take the first portion since as king I have the highest status. I will take the second portion as your partner. As for the third portion, it will present serious trouble to you if you don't make yourself scarce."

If the amount of reward depends on who leads, then a conflict may occur. Suppose that, if *A* permits *B* to display more successful leadership than *A* can possibly display, *B* will receive more of a share of the reward than *A*. Even though *B*'s successful leading may increase *A*'s material gains, *A*'s level of aspiration may require that he, rather than *B*, receive the leader's share. *A* therefore cannot permit *B*'s acts to be successful although *A* would tend to profit some from the success of *B*'s leadership activities. *B*'s success would increase *A*'s absolute rewards, but as far as *A* is concerned *B*'s success would prevent *A* from obtaining the amount of reward desired by *A*. Thus, when a member believes that permitting another member to display successful leadership will reduce his own proportionate share of the reward (or increase his own

share of deprivation, pain, or injury), he will tend to reject the attempted leadership act by the other member.

Reasoning akin to this argument was advanced by Stouffer, Suchman, *et al.* (*1001*) for the fact that compared to those men in front-line combat, or those men stationed in the United States, enlisted men in the relatively inactive overseas theaters were particularly unfavorable in their attitudes toward officers, although they were more favorable toward many other aspects of Army life, such as job assignment.

> Among combat troops, whether air or ground, officers and enlisted men shared the common experience of deprivation, danger and death. Social differentiation and special privileges were at a minimum. In rear areas and inactive theaters, and to a lesser extent, in the United States, the privileges enjoyed by the officer class were . . . unjustified in the eyes of the men . . . If the supply of attractive women, liquor, or entertainment is severely limited, as was the case in many overseas areas, the problem of equitable distribution is much more acute than if there is plenty to go around. The charge which enlisted men repeated in theater after theater was that the officers used their rank to monopolize these desired objects . . . It was an indictment of a *system*—a system in which a privileged minority acquired, through their authoritarian position, a preponderant share of the scarce objects which were craved by others (pp. 367–369).

Much of the political history of the world has concerned the dilemma described by this argument. At some point it often was no longer profitable for the individual to continue to repress individual goal-directed activities and follow the leadership of others in group goal-directed activities. Thus, in the long run, the medieval serf may have suffered materially rather than profited when he gave up his rights and privileges as a citizen to gain military protection from his feudal lord. The protector became the one whom the serf had to be protected against.

Differential gain may also be the reason for much of the rejection and hostility toward American post-World War II foreign aid programs by the lower classes in underprivileged countries such as Iran. While the assistance may have benefited almost everyone in a village community, the "lion's share" of benefits have gone to the landowners —a dominant minority in best financial condition initially.

CONFLICT AND MAINTAINING ESTEEM, STATUS, AND CONTROL

Acceptance of an attempted leadership act, while materially or otherwise rewarding, may also result in a loss to the follower or a failure to gain in esteem, status, or control. His motivation to maintain or increase his esteem, status, power, or control over his own actions may cause him to reject the leadership of another capable or powerful member ordinarily likely to be successful and effective.

MOTIVATION TO MAINTAIN ESTEEM, STATUS, AND POWER

Despite similarity of background and satisfaction with wages, telephone operators sufficiently satisfied to remain on the job were found by Wickert (*1116*) to have been much more likely than those who quit to feel they had a chance to make decisions on the job and to make important contributions to the success of the company. Undoubtedly, people differ in the intensity of this drive for stature among their associates, but it is probable that in our society at least, striving for being valued highly, for importance, for doing important things, and for control is a normal or average tendency. A number of theorists have assumed the existence of this motivation for esteem and power. Van Delden (*1071*) suggested as a "sound principle of human relations" that we all want to feel important. Similarly, Jameson (*570*) offered as a first principle of social interaction that persons strive for higher status. Gardner (*383*) mentioned that most industrial personnel are likely to become anxious about their esteem or status when others are granted pay raises while they are not, or when outsiders are hired with higher status and pay. Again, Jameson (*570*) postulated that a struggle for status occurs in any organization, since there is only a limited amount available to all members. The scarcer the coveted status, the more it is sought and the greater will be the struggle for it. But Titus (*1043*) argued that this urge for power over others is due to a more basic drive for security. If we have control over others, we are more secure than if they have control over us.

MOBILITY AND STATUS STRIVING. Commentators on the "American civilization" from DeTocqueville to Lerner found striving for status to be a predominant characteristic of Americans. Douvan and Adelson (*281*) suggested that the upward status-striving in our culture is the "normal" pattern of parental values to be learned by their children. The lack of a class struggle in America is attributed to the desire among

the mass of Americans in the working classes to move upward (or to have their children move upward) rather than to destroy the upper classes. This desire is fed by the opportunity for a good many to move upward through education, monetary success, or marriage. In fact, McGuire (*696*) noted that upward movement is needed merely to maintain the same numbers in the different classes because the higher classes have lower birth rates. Around 25 percent must move up to replenish the supply in the upper classes. Moreover, the steadily increasing demand produced by technological progress for more professional, technical, and managerial personnel and correspondingly less unskilled workers (whose places are taken by machines), means the need for still greater amounts of continued upward movement.

SATISFACTION FROM ESTEEM

Just as we want to occupy valued positions, most of us want to be valued as persons. Indeed, Lippitt, Thelen, and Leff (*676*) hypothesized that we are more concerned about being criticized personally than about being criticized for the social role we play. This concern with one's value is implicit in a theory of social comparison processes proposed by Festinger (*320*). For the self-oriented in particular, it is more significant to be seen succeeding than to be successful.

Indirect empirical evidence that we desire esteem comes from studies showing that we are more attracted to and satisfied with situations and groups that afford us opportunities for esteem. Van Zelst (*1073*) found that the highly esteemed worker, according to sociometric analyses, was also more satisfied with his job and with his company. Going even further, Jackson (*564*) reported that subjects were attracted to those groups in which their esteem as members was greatest. Similarly, Heynes (*515*) observed that the conference participants who "felt they are accepted" and actually were more highly accepted, were more satisfied with the conference decisions. On the other hand, Flint, Bass, and Pryer (*350*) found no relation between esteem and attraction to problem-solving laboratory groups.

SATISFACTION FROM STATUS

In a review of sources of industrial job satisfaction, Harrell (*479*) concluded, "The most important factor related to job satisfaction is type of work." Harrell noted that satisfaction generally was higher

among those with jobs of more status. Thus, various surveys found that laborers were less satisfied with their jobs than were other occupational groups. Factory workers were much more ready to have selected a different occupation than professionals. While most textile workers were dissatisfied with their jobs, most schoolteachers were satisfied. In agreement with Harrell's generalization, Watson (*1090*) concluded that managers and supervisors tend to be more satisfied with their work than do rank-and-file employees.

In the laboratory, Guetzkow (*443*) found that key men in a communication network saw themselves as most important and were more satisfied than members with less important positions. Flint, Bass, and Pryer (*350*) found attraction to a group was greater in a member assigned more power compared with four others at a much lower level but the results were not significant. They did find that attractiveness of a group was significantly lower for the average member when members were assigned control differentially in contrast to groups where all members were equal. The satisfaction accruing from status and the desire to maintain or increase status were illustrated by Kelley (*601*), who found that high-status members threatened with demotion as well as low-status members with no possibility of promotion were least attracted to a group. Conversely, in yet another laboratory study, Spector (*972*) reported as most satisfied those men placed in a pseudo-military hierarchy who were promoted. In the Air Force, Borgatta (*148*) found that men seeing adequate opportunities for advancement to officer positions also were less critical of the rewards and punishments possible in the Air Force. However, those actually striving for advancement in status were more critical than those who do not seek promotion.

EQUALIZATION OF STATUS ELSEWHERE. Consistent with the general tendency to want to maintain status and esteem and to strive for more of it, is commentary and evidence suggesting that those who already have status or esteem in one group strive to reach the same level in other groups. Benoit-Smullyan (*115*) hypothesized that an individual with different esteem or status in different groups would attempt to equalize his stature in the various groups. Thus, a millionaire with high financial status and esteem may endow an art institute to gain status or esteem in cultural circles. Similarly, Fenchel, Monderer, and Hartley (*314*) found that subjects' strivings for status in five groups to which

they belonged were higher in groups where their current status was relatively lower.

DIFFERENTIAL CONCERN ABOUT GAINING STATUS. Also consistent with the generality of status striving is that those with lower status in a group are more likely to be concerned about raising their status than those who already have attained high status. In three industrial plants, Dalton (*252*) observed that the lower-status young staff executives, in contrast to the older, higher-status line executives, tried to get more personnel to direct, tried to transfer to line positions (whereas line executives did not seek staff jobs), were more concerned about entering the management "eating circle," and were more concerned about personal distinctions. Similarly, Bentz (*116*) found that college faculty members who accorded themselves higher status tended to report less concern within their department about rank and status. Gerard (*391*) noted in a simulated laboratory group that if a subject received false notes making his own position less clear, the subject increased in concern about the criteria for evaluating himself rather than the group. Again, Hetzler (*513*) commented that lower-status Air Force officers are more prone to "seek status gratification" through vigorous competition with their immediate subordinates. But this is less common among officers in upper echelons.

SUBSTITUTION. If the member of low status has little opportunity for or success in gaining more status, he may substitute for it by emphasizing gaining of status in another way or gaining of esteem. He will be concerned more about these substitutes than a member with already high status. Thus, Pfiffner (*820*) commented that the rank-and-file employee takes pride in his seniority as a source of status even when it may bring him few real benefits and also tends to "play up" his own job title and the skills demanded by his job. Stockford (*987*) found that the lower-status supervisor revealed more interest in the welfare of others than those at higher echelons. Possibly the long-term lower-status supervisor, thwarted from gaining status, seeks substitution in gaining esteem.

Substitution may also occur because overt status striving may cause one to lose esteem. The "social climber" is often resented by his peers. Thus, Stouffer, Suchman, *et al.* (*1001*) found that a large majority of both enlisted men and officers agreed that most soldiers lose respect for a man who is always bucking for a promotion. Again, in Whyte's

(1111) street-corner society, boys who did not plan to go to college resented those who did.

MAINTAINING HIGH STATUS. Also consistent with the general tendency to strive for status, esteem, or control is the fact that the person with high status will be concerned about maintaining what he has. Thorndike *(1031)* commented, "For many, perhaps most persons, political power is a habit-forming psychological drug." Abdications are rare. Trade union office-holding illustrates the matter. A president of the Teamsters' Union is tenacious about maintaining his union office because it is inconceivable for him to return to driving a truck after a term in such a higher-status position. On the other hand, a president of Actors Equity or the American Association of University Professors can return to an equally high status (even higher in some cases) after serving a term in office and so usually is not particularly reluctant to relinquish office (Selznick [*928*]).

RELATIVE DEPRIVATION AND LOSS OF STATUS. The relative differences in sense of deprivation when status is threatened are still another manifestation of the desire for status and to avoid its loss. According to Stouffer, Suchman, *et al.* *(1001)*, surveys revealed that those American servicemen of higher status in civilian life felt much more deprived by the Army of freedom and opportunity. Dobbins and Bass *(276)* found a high correlation between unemployment and white admissions to a southern state penitentiary, but a low correlation for Negro admissions. They accounted for the differential by suggesting that unemployment represented a greater relative deprivation and loss of status for the white than for the Negro.

EVIDENCE OF THE CONFLICT

The desire to maintain or increase status, esteem, or power results in members rejecting attempts by others which ordinarily would be accepted. If these others have ability or power, conflict will result as their attempts to lead are rejected.

A manifestation of conflict is illustrated in members rejecting the opportunity to form suggested coalitions with others in three-way bargaining situations, even when it would be otherwise rewarding, because joining would cause a loss of esteem relative to the other members (Hoffman, Festinger, and Lawrence [*525*]). Similarly, analyses of French cabinets and college interfraternity councils led Holt *(535,*

536) to infer that otherwise mutually rewarding coalitions were rejected because loss of autonomy or self-determination was involved. A coalition was supported by a member to the extent that he could control it.

Where status, esteem, or control is not sought or put in jeopardy, attempts to lead by others with power or ability are more likely to be accepted. Thus, Purcell (*842*) found women packing-house employees more satisfied with management-labor relations because, he reasoned, women were less concerned than male workers about increasing their status in the plant. Again, Eisenstadt (*298*) found an immigrant more predisposed to accept the new life in Israel to the extent that his self-evaluation was not rooted in "old country" status or to the extent that he could maintain stature within an attractive family. The European lawyer who could become a field hand in Israel without losing his self-esteem was more prone to accept the attempts of the Israeli leadership. He was also more accepting insofar as he identified as a Jew rather than as a German, Frenchman, Moroccan, etc. so that the immigration and acceptance of life in Israel did not represent a loss of status for him. Identification as a Jew depended on strong traditional isolation as a Jew, as among the Yemenites, or complete acceptance in the community, as among the Bulgarians. Similarly, Stouffer, Suchman, *et al.* (*1001*) found that the serviceman with high civilian status was more likely to be dissatisfied with his immediate Army leaders than a serviceman whose civilian status had been lower.

The struggle for esteem or status and the ensuing conflict is most readily observed in groups in which initially all members are equal in status. Thrasher (*1037*) commented on the competition and conflict common in the informal gang of boys. Gibb (*396*) found initially leaderless groups which were "high in organization"—which we presume implied varied positional control—to manifest a greater amount of leadership than groups low in "organization." Also, Bradford and French (*159*) emphasized that the productivity of group thinking depended on ability of group members to perceive clearly each other's roles. Heinicke and Bales (*490*) and Whyte (*1113*) noted that only after this struggle ended and a stable hierarchy was organized in the group could those who had been characterized by a great deal of overt interaction reduce their efforts. Once a person achieves a position of

power or is recognized by the other members as a more powerful person, he needs to attempt less leadership to exhibit the same amount of successful leadership. Initially the unrecognized would-be powerful person must face more rejection of his attempts to lead. Gradually, if he is a winner in the competition for status and esteem, he has to attempt relatively less leadership to continue his success as a leader. Thus, Bass, Flint, and Pryer (*82*) found that when all the members of a group are equal in control over each other, in order for a member to exhibit more than an average amount of public leadership, he must attempt more than the average amount of leadership. In groups where members differ initially in control over each other, there is much less relation between attempted and successful leadership. However, this does not apply to private success as a leader. Moreover, Bass, Pryer, *et al.* (*90*) failed to find that groups where members were equal in control of each other exhibited a greater total amount of attempted leadership to solve problems than groups where some members had more control than others. It may be that as much conflict and rejection of leadership attempts occurred when members differed initially in control, as when they were equal but for different reasons. In these 51 groups of ROTC cadets, a subsequent analysis made by Bass and Flint (*80*) showed that while members of greater power attempted more leadership and were seen by others to have exhibited more success, they actually were no more successful. Moreover, high-control members significantly overestimated their esteem compared to members of low control. The control and power differences arbitrarily assigned subjects of these groups may have aroused hostility and resentment among those without control. While members of low control saw themselves submitting to the powerful members, they actually rejected in greater proportions the attempts by the more powerful to lead.

In contrast, as discussed earlier, permissive leadership and the use of group control rather than outright coercion by the most powerful member maintains a sense of self-determination. Members contributing to a group decision suffer little loss in self-esteem or status in accepting the decision compared to when they are forced to accept the decision of a more powerful member. Thus, Morse, Reimer, and Tannenbaum (*766*) noted increased satisfaction with a new organizational arrangement that promoted more self-determination and group decision-

making by shifting down one echelon the authority to make and execute various decisions. What the foreman previously had decided was now delegated to his subordinate workers.

RESOLVING THE CONFLICTS OF THE POTENTIAL FOLLOWER

For the potential follower, the potential leader offers, along with promises of goal attainment, threats of increased work, loss of self-esteem, and unfair distribution of reward. From what is known, in general, about individual reactions to conflict, it may be assumed that either one or the other expectancies will be repressed, resulting in the emergence of maladaptive behavior. Or "logic-tight compartments" may be formed by most members with respect to the leader (the conflict is denied).

RATIONALIZATION. Since it probably is more "adjustive," more satisfying, less likely to produce discontent to repress negative attitudes toward the high-status figure, a member more likely may indicate that he thinks he has a considerate leader, may rationalize about the leader as the threatener of work and restricted self-determination. Members may conclude, "He's a good Joe! It's just the system forcing him to make us exert ourselves." Titus (*1043*) suggests that denial and rationalization are characteristic pseudosolutions of the subordinate faced with an erring superior. "Mistakes of the leader that are called to the attention of the lieutenant are either denied, reduced in significance or excused on the grounds of human frailty, of being double crossed by others and of other equally vague and uncertain factors" (p. 76).

Carlé (*193*) points out that man, in general, has not been able to accept the concept that his behavior is determined. He develops delusions of self-determination, while his leaders develop delusions of self-sacrifice and expertness in controlling man's behavior. These delusions are reduced to concrete terms and magical symbols so that the boundary between functional belief and actuality disappears.

Logic-tight compartments appear to be common solutions to follower conflict in attitude toward the leader. Ansbacher's (*28*) survey studies of German prisoners of war provide extensive evidence that while followers esteemed the leader, Hitler, and had confidence in him, they personally disagreed with him on many significant issues. Instead of rejecting his leadership, however, his person and performance were

distorted to better suit the needs of his followers. Hitler was promising victory long after German soldiers who esteemed him and had confidence in him believed that he knew the war was lost. While Hitler preached that Germany would never capitulate under any circumstances, a majority of those who had confidence in him believed he did not want unnecessary bloodshed and therefore would consider it his duty to end a lost war. Hitler issued explicit orders that soldiers were to fight to the last, but his supporters believed it was right to surrender for various reasons.

DISPLACEMENT. Direct aggression against the leadership is also found in the history of many civilizations. The external proletariat, the "barbarians" on the borders, first follow the leadership of the civilizing dominant minority, then become hostile. But displaced aggression toward a less powerful target is a more common pseudosolution to leader-follower conflict. "He's O.K., it's just his 'do nothing' assistant who is the cause of all the trouble." Purcell (*842*) found packing-house employees more ready to blame the lower-status foremen than top management for difficulties. "The head men of the company . . . are all right. They don't tolerate the foreman doin' the wrong thing. It's some foremen . . . the nasty little guys who are trying to get ahead" (p. 94). Politicians capitalize on this displacement. When faced with criticizing a highly esteemed office-holder, they will center their attacks on the lower-status "cronies," poor "advisors," or "Brain Trust," rather than the office-holder himself.

WITHDRAWAL. Toynbee (*1052*) emphasizes withdrawal as a pseudosolution of the internal proletariat of conquered peoples, ruined citizens, unwelcome immigrants "in but not of the society" to their conflict with the dominant minority who have both developed civilizing influences and taken away self-determination. Such withdrawal may take many historical forms ranging from extreme asceticism, fasting, and self-mortification, to abandoned sexualism. Detachment and withdrawing into higher religion, archaistic or futuristic fantasy are other reactions to conflict characterizing a rejection of the leadership of the dominant minority.

Regression to earlier successful forms of behavior is also common as a pseudosolution of societies in decline, as is the development of aggression toward oneself in the form of guilt feelings and a sense of sin.

THE POTENTIAL LEADER AND LEADERSHIP CONFLICT

The member with power or ability may fail in his attempt to lead through confusion concerning what is wanted or expected of him. For example, Colmen, Fiedler, and Boulger (*232*) reported little agreement among 45 USAF leaders in evaluating their own duties. Further confusion is added by the discrepancy between what potential leaders think they ought to do and what they actually do. Thus, Halpin (*465*) found little relationship between how aircraft commanders and school superintendents said they might behave and how they actually behaved according to subordinates' observations. Again, Bass and Flint (*80*) found that members with control thought themselves more successful as leaders than they actually were.

CONFLICT INHERENT IN LEADER BEHAVIOR

But this confusion may in turn be due partly to the conflicts already mentioned in discussing reasons why potential followers may reject attempts to influence them. The would-be leader may threaten increased work, decreased distribution of rewards, and loss of esteem through reprimand, while he is also instrumental in bringing rewards to the group. Thus in his *War Commentaries* Caesar both praises and reproves his men after the defeat at Gergona:

> Next day the legions paraded, and I reprimanded them for their rashness and misplaced zeal in having decided their own tactics, disobeyed the recall, and ignored the commands of their officers. Pointing out the danger of an uphill engagement, I reminded them of the occasion at Bourges when, although the enemy were caught without their general or their cavalry, I had preferred to throw away certain victory rather than suffer the smallest loss by fighting uphill. While confessing my unbounded admiration for the courage of men who refused to be daunted by a fortified camp, a high mountain, and a walled town, I condemned in no uncertain terms their indiscipline as well as their presumption in thinking they knew more than their commander-in-chief about the science of war and its practical application. 'Men serving under me' I concluded, 'are expected to show obedience and self-restraint no less than high courage in the field!' Before dismissing them, however, I spoke a few words of encouragement, and told them not to be disheartened by a reverse which was due more to the ground over which they had been obliged to fight than to the enemy's military skill ([*182*], p. 139).

CONFLICTS WITH SUBORDINATES

An important source of conflict between officers and enlisted men is apparent in the differences in attitudes toward fraternization. According to a survey reported by Stouffer, Suchman, *et al.* (*1001*) here are the percentages agreeing with the statement, "An officer will have the respect of his men if he pals around with them off-duty": captains, 27 percent; first lieutenants, 39 percent; second lieutenants, 54 percent; and enlisted men, 82 percent.

A discrepancy often exists in organizations such as the Air Force between what leaders think they ought to do and what followers expect of them (Davis [*256*]). Supervisors often misperceive the wants and motives of their subordinates. Thus, Air Force research supervisors believed that pay and incentives were most important to their subordinates, while the subordinates were most concerned about better utilization of their education and experience and self-determination of assignments (Baker [*41*]). Similar results have been found repeatedly in industry. Both management and union executives believe increased pay is the key to motivating workers, while most surveys suggest that recognition, fair treatment, and considerate supervisors rank higher in making for worker satisfaction. Yet a member with status, Miller (*746*) hypothesized, is likely to be esteemed to the extent he does what is expected of a man in his position. Experimental evidence is provided by Greer (*434*), who observed that among the more effective of 26 infantry rifle squads in six hours of simulated combat, appointed leaders were perceived to act more closely to what was desired and expected of them by the rest of the squad. Failure to live up to subordinates' expectations thus is likely to result in conflict. Failure to do as expected implies unpredictability. Subordinates may become less secure and more threatened when faced with an immediate superior in status who continues to deviate widely from the behavior expected of anyone in the position he holds. Thus, Chancellor Bismarck was a terror to work for. He was annoyed when subordinates asked for instructions and when they would not use their own judgment. Yet he interfered in a rage when subordinates acted independently and carried out some small detail in a manner that did not suit him (Pigors [*826*]).

CONFLICTS WITH SUPERIORS

In the usual status hierarchy, often before a supervisor can initiate

some action among his subordinates, he must gain the approval of his superiors. He must be able to influence someone of higher status than himself—a potential source of conflict since high status rather than low is conducive to success in an interaction between persons of different status. Thus, 490 industrial supervisors expressed as most important a need for more development on "how to sell ideas to my superior" (Mold [*757*]). Again, Dexter (*273*) commented, "A readiness to recommend reforms is one of the greatest handicaps under which an ambitious apprentice can labor."

Conflict is latent in Freeman and Taylor's (*363*) observation that while 100 top executives say they look for aggressive, energetic applicants for management positions in the company, they personally want "tactful subordinates." They attribute their own success to "brains and character," but they prefer "emotionally controlled and balanced" subordinates rather than overly bright or highly ethical ones. The conflict is illustrated most clearly in the self-perceptions of top management compared with those in middle management. While 100 top managers emphasized their self-determination, enterprise, and dignity, 170 middle managers stressed their own discreetness, modesty, practicality, patience, deliberateness, and planfulness. While the top men disavowed stinginess, shyness, lack of ambition, the middle managers avoided describing themselves as reckless, disorderly, aggressive, and outspoken (Porter and Ghiselli [*835*]).

Another conflict may arise in the fear of the superior that one of his lieutenants will seem more capable than he. The superior may feel anxious or threatened by what he sees as potential competition. He may fear that through more demands for the success and effectiveness of his lieutenant, his own esteem will suffer in comparison. Lao-tse recognized this possibility in his praise of the "resolute minister . . . possessed of generosity regarding the talents of others."

THE "MAN-IN-THE-MIDDLE"

Little agreement was found concerning what superior officers and subordinate airmen said characterized good noncoms (USAF [*1066*]). In the same way, on the bases of factor analyses of superiors' and subordinates' ratings of noncoms, Moore (*759*) concluded that some of the revealed factors were different in importance to superiors' compared with subordinates' evaluations of a leader. For example, while

subordinates focused on the value of being less strict, superiors emphasized military bearing and ability. Similarly, Halpin (*464*) found that air crew commanders emphasizing considerate behavior were most likely to be esteemed by their subordinates, while aircrew commanders who initiated activities and tended to be inconsiderate of their men were most likely to be rated effective leaders by their superiors. Thus, the commander had to be considerate to be rated highly by his men and inconsiderate to be rated highly by his superiors. Presumably, part of the commander's continuing success as a leader depended on being esteemed by his subordinates. Yet his rewards from superiors were likely to depend on his structuring the situation firmly for his subordinates, for, as observed by McCormick and Middaugh (*688*), in business, "management rates high those supervisors who have the same prevailing attitudes and points of view as the rating officials." Likewise, low positive correlations between agreeing with superiors and rated effectiveness of First Sergeants were found by Karcher (*588*). Again, Zentner (*1149*) noted that while 87 percent of officers thought that a good noncom was one who follows orders, only 44 percent of enlisted men accepted this. On the other hand 49 percent of enlisted men felt a good noncom had to gain popularity, while only 7 percent of officers agreed with them.

RESOLUTION. This conflict of the "man-in-the-middle" has been noted by Smith (*964*), Roethlisberger (*877*), Hemphill (*497*), and Gibb (*400*). Halpin and Winer (*469*) suggest several ways open to the airplane commander to resolve the conflicts with superiors and subordinates: (1) he can identify completely with his superiors and the formal organization and disparage the need to be considerate of the welfare of his subordinates; (2) he can reduce intimacy with his men to minimize guilt feelings about being inconsiderate of them; (3) he can be inconsiderate "on the job" but be very considerate of the men and "pal around with them off the job"; (4) he can identify completely with his men, yet in doing so he will probably fail to carry out all his responsibilities as a commander. That some of the alternatives are commonly practiced was evidenced in a factor analysis by Hites (*519*), who noted that leaders vary in their loyalty and deference to superiors. Independent of this they also vary in loyalty to their subordinates.

A follow-up study of 89 B-29 aircraft commanders by Halpin (*460*)

found that a commander was likely to be esteemed both by his superior and his subordinates if he exhibited consideration, friendliness, and warmth toward his men and at the same time initiated clear patterns of organization and ways of accomplishing missions. Also, Rush (*895*) found that air crews were more likely to be harmonious when their commander tended to be high in both initiative and consideration. Halpin (*460*) concluded, ". . . the principal maxim we can offer the aircraft commander who wants to improve his leadership skill is to stress both consideration and initiating structure behavior, and to avoid scrupulously any tendency to view these two forms of behavior as alternatives from which he must choose to emphasize but one" (p. *vii*).

AN EXAMPLE. But it may be easier said than done in many situations. Lindesmith and Strauss (*671*) describe how a sergeant "solved" each of five dilemmas posed by conflicting interests of superiors and subordinates:

(a) The sergeant forced the platoon members to carry out orders from above, much against their wishes.

"Making the men shipshape for inspection after the war was over. A sergeant's official position is endangered unless he does this. This is where he begins to drift from the men unless he handles them right."

(b) He persuaded the men against mild protestations to carry out the colonel's orders.

"Look, fellows, this isn't a bad deal; we have to do a good job once in a while."

(c) He led the men in disobeying the colonel's orders.

"The colonel gives you an order. You say, 'Yes, Sir,' you never say 'No, Sir.' You take the men out with all the preparations made obviously, making everyone else think you are going to do the job. Then you don't. You take the men out and lay quiet for a while."

(d) He led the men in activities which were in the interests of both the platoon and the higher authorities.

"You see that they are fed, that they have a place to sleep, have dry socks, and are safe under battle conditions. This is what the army officially seems to think of as leadership."

(e) He compromised the interests of the colonel in the interests of the platoon.

"On reconnaissance you get five items of information but you only tell the colonel of two, and withhold three. Then in case he asks your platoon to get additional information, but it's dangerous to find it out, you can give

him the remaining three bits of information. He never questions whether you went out or not" (p. 277).

SINCERITY, TACT, AND HYPOCRISY. Faced with an insoluble conflict of interest between superior and subordinate, the man-in-the-middle is probably likely to submit to the demands of those with the most power over him—usually his superiors. In some cases, the esteem of his subordinates may be more valued (as in the case of the sergeant, above) by a supervisor than the extrinsic rewards offered by those with status higher than his, but usually the power will reside with those of superior status. While acquiescing to his superiors, he may try to rationalize his position to his subordinates and be labeled as insincere for his effort. Thus, Roff (*879*) reported that subordinates rated their immediate combat officers as less sincere, less impartial, and more concerned about personal advantage than did the superiors of these officers. If leaders encourage rationalization or other pseudosolutions among subordinates, they face the difficulty of remaining consistent in taking this somewhat hypocritical path. (As Quintilian quipped, "A liar should have a good memory.") According to a study reported by Wickert (*1115*) an officer must appear sincere and consistent to be rated a successful combat crew leader. The dangers to the potential leader inherent in hypocrisy (sometimes confused with tact), is that if he must remain together with his group for any period of time, only one false step will brand him as insincere, collapsing the myth of his sincerity. Bogardus (*142*) commented that lasting success as a leader cannot be built on camouflage. However, it is probable that in the political arena, or in large organizations, given the power of a favorable press or control of communications so that followers have little opportunity to check personally on the leader's actions or experience any effects of his actions, insincerity may maintain a leader in office indefinitely.

Titus (*1043*) remarked that "Hypocrisy may be necessary when working with followers but it should be held to the barest minimums. Self-deception is never justified, as it reduces the effectiveness of leadership and aggravates the already necessary evil of duplicity" (pp. 80–81).

THE MASK OF LEADERSHIP. Rather than be insincere, Tead (*1019*) suggested that to be successful the would-be leader must be a good

actor. Despite his own feelings he must remain objective. Again, Jameson (*570*) emphasized the need for potential leaders to "wear masks," living up to expectations despite varying demands.

Pfiffner (*820*) resolved in a similar way the dilemma faced by the potential leader in catering to the interests of the organization as well as those of his immediate subordinates. Following Bogardus (*142*) and Hollingworth (*533*), Pfiffner agreed that the would-be successful leader must be objective and "poker-faced," permitting himself only minor insincerity or "benign" chicanery and masking his own feelings. Barnard (*55*) provides more detail on what he calls the "fine art of executive decision." Superiors' demands for conflict-laden decisions by the executive must be met, although responsibility for them can be delegated (subdecisions can be made by subordinates). Subordinates' demands for such decisions need only be met when important and not delegated to others. Further tact is illustrated by avoiding decisions on questions not now pertinent; avoiding premature decisions; avoiding impossible solutions; and avoiding decisions others should make.

In facing the predicament that an executive must be "aggressive in thought and action" yet receptive to ideas and actions of others, Learned, Ulrich, and Booz (*641*) suggest the executive must perceive just how much choice exists for him. He must be the "self-directing playwright of his own part" in the organization, but he must be cognizant of the limits set for him by his position in the hierarchy.

CONFLICT AS A CONSEQUENCE OF OVERESTIMATED SELF-ESTEEM AND STATUS

SELF-ESTEEM VERSUS ESTEEM BY OTHERS

According to Chapter 15, the higher a member's self-esteem, the more likely he is to attempt leadership. The higher he is esteemed by others in the group, the more successful he will be in his attempts to lead. It follows that if a member's self-esteem is much higher relative to his esteem, he will attempt leadership, but his attempts may be rejected by the other members. Studies by Flyer, Barron, and Bigbee (*352*), and Bruner, Riecken, *et al.* (*169*) indicate that overestimation of one's own esteem is commonplace. The lack of insight of a member into his own esteem in a group has been the subject of a number of empirical investigations, directly or indirectly supporting the deduction

that lack of insight forecasts failure as a leader. The discrepancy appears to relate to social rejection by others. Thus, Green (*432*) found that "socially maladjusted" persons tend to overestimate their own esteem and tend to disagree more with the rest of the group's estimates of their own esteem. Bass, Wurster, *et al.* (*93*) reported a correlation of .41 between the extent a sorority member overestimated her own esteem and the extent she was socially maladjusted. Members of ROTC cadet groups involved in a situational test and given more control over others in an arbitrary way, overestimated their own esteem, attempted more leadership, were seen by others as more successful, yet actually were not particularly successful in leading others (Bass and Flint (*80*). Conversely, Rosen (*884*) found that boys who were more accurate in estimating their esteem among their associates were more successful in influencing other boy campers. Accuracy, in turn, was related to a previous record of better personal adjustment.

SELF-ACCORDED STATUS VERSUS ACTUAL STATUS

The same argument can be advanced to deduce that members who judge their own status as much higher than it is actually, will tend to attempt but fail in leading others. Karcher (*588*) hypothesized that a first sergeant must perceive his own position accurately to be successful as a leader. Again, the tendency to overestimate status is a common observation. Thus, Campbell (*189*) found that 250 Boston residents tended to rate their own jobs higher in value than jobs very similar to their own.

The discrepancy is likely to produce conflict. A janitor of an apartment house may adopt "professional standards," according himself more status than his tenants grant that he has (Gold [*413*]). Resentment and conflict are likely. A foreman, with the title and salary of a supervisor, may accord himself more status than his more powerful superiors attribute to him, or that his unionized, more powerful subordinates would grant to him. His attempts to lead his subordinates will meet with rebuff (Wray [*1140*]).

An experiment by Lee, Horwitz, and Goldman (*646*) has relevance. Each of three instructors of ROTC cadet classes were given more or less authority or status to decide whether certain instructions should be repeated. Most students voted to repeat but in each class, the instructor arbitrarily decided to not repeat the assignment. His attempt to coerce

was met with the greatest resentment and hostility when it was believed that he had little authority to make such a decision. Thus, the "planted" instructor who acted as if he had a great deal of status, but did not in the eyes of the others, met with the greatest rejection. An instructor, believed to have the status by the others, could act in this manner and be less resented for doing so.

Another example of a situation likely to produce such conflict might occur in a restaurant. The waitress sees herself in a position to initiate orders to the counterman. But the male counterman regards females in general as of lower status. While to avoid discharge, the counterman accepts reluctantly the orders of the waitress, he resents the conditions. Tension is high and revolt is incipient (Whyte [*1112*]).

The extent a need for leadership is present will affect the reception given the member of low status who attempts to lead. Heynes (*515*) reported that when a member of low status attempted leadership in the face of an adequate performance by the appointed leader—the member endowed with the most status—the low status member was not as likely to be "acceptable as a conference participant." On the other hand, if the member with the position of conference chairman does not carry out the duties of the position, other members lacking the status of the chairman can attempt leadership and be "more acceptable participants" for their efforts.

GREATER LIKELIHOOD OF OVERESTIMATING SELF-ESTEEM

Status is more likely to be stable and discernible than esteem (Titus [*1043*]). Members more often are likely to disagree about the esteem of another member than about the other member's status, for it is more difficult to make accurate judgments about esteem. Thus, Gronlund (*437*) observed teachers' estimates of the esteem of their pupils ranging in correlation from .27 to .84 with the actual esteem of the pupils. While esteem more often depends on individual appraisals, hearsay, personal values, and individual differences in perception, status more often is described by written statements, defined in a uniform way, and most important, status is more often made visible by symbols of office. And, as Znaniecki (*1155*) postulated, as objects become more visible, more realistic attitudes develop about them. When symbols of esteem exist, they are less clear in meaning to most observers. It is

much easier to evaluate the general's status by the stars on his shoulders than to evaluate his esteem by the medals on his chest.

In the same way, it also seems evident that a designated member is usually likely to be more clear about his status in an organization than about his esteem in the eyes of the other members. Thus, overestimation or underestimation of esteem is more likely than overestimation or underestimation of status. Underestimation is of little consequence in understanding a member's attempt but failure to lead. However, since overestimation is conducive to attempting and failing, and since overestimation of esteem is more likely than overestimation of status, it follows that when leadership depends on esteem as in an informal group, more attempted unsuccessful leadership is likely in comparison to the formal organization where leadership depends on status. The proportion of unsuccessful leadership acts to attempted leadership acts should be greater in informal groups where leadership can only be based on a hierarchy of esteem or ability than in formally organized status hierarchies.

Reference has already been made to observations by Thrasher (*1037*), Whyte (*1113*), and others concerning the struggle for status likely in groups such as gangs or informal discussions without much initial status differentiation, where successful leadership must depend on esteem or ability. In a most relevant experiment, Carter, Haythorn, Shriver, and Lanzetta (*199*) contrasted groups with an appointed leader and groups with all members equal in status. In the latter groups with no appointed leader, there was more conflict and rejection by members of each other's attempts to lead than in the groups organized with an appointed leader.

AN EXCEPTION. Special conditions may reduce the above conflicts likely in the esteem hierarchy. For example, if the abilities and performance records of members are made clear to all, if esteem is made more visible, conflict should be reduced. Drucker (*282A*) observed that despite the informality of relations existing between executives among the different divisions of General Motors, they work together with relatively little conflict. He attributed the absence of conflict to the fact that objective cost measures of departmental and division performance made the effectiveness and ability of the various executives visible to each other.

CONFLICT AS A CONSEQUENCE OF INCONGRUITY OF STATUS AND ESTEEM

As noted in Chapters 14 and 15, status and esteem tend to correlate positively in the usual group. However, discrepancies do occur. The discrepancies are likely to be associated with conflict.

The tendency to lead is greater among those of higher status as well as those of higher esteem. Suppose that the person of highest esteem in a group is not the same as the member with highest status. Just as complete equality of all members in status or control produces conflict and struggle, so the occurrence of two or more individuals with equal leadership potential is likely to promote conflict. For example, the higher status of the foreman of a department permits him to succeed as a leader. But if the most-esteemed member is someone older than the foreman, this other member of the department also has leadership potential. As long as the foreman and the most-esteemed worker agree on the solutions to the group's problems, no conflict occurs. But when disagreement arises between these two members, both with high potential to succeed in leading, conflict is likely. More generally, if the correlation between the esteem and status of members in a group is high, little conflict is likely. But if the correlation is low; that is, if different members in the group have potential to succeed as leaders, conflict results if they do not share the same approaches to the group's problems.

FORMAL VERSUS INFORMAL ORGANIZATION. The same phenomenon of status-esteem incongruence and its effects can be conceptualized in terms of formal and informal organization. Most formal organizations require positions of varying importance to the organization, thereby providing the occupants of the positions with varying status. Again, much of the interaction between persons regardless of position is based on esteem. Thus, the divergence of the informal from formal organization is another but consistent way of conceiving status-esteem incongruence.

RELATED THEORY AND RESEARCH ON STATUS-ESTEEM INCONGRUENCE. Selznick (*929*) stated the proposition concerning the effects of the status-esteem correlation in somewhat different terms. When authority and "social power" are highly correlated, he declared, stability is assured. When they are uncorrelated, stability is threatened. Similarly,

Moreno (*762*) noted "formal . . . groupings which are superimposed upon informal, spontaneous groupings by some authority are a chronic source of conflict" (p. 701–702).

Roethlisberger and Dickson (*878*) emphasized the relation of worker satisfaction to the existence in an industrial plant of discrepancies between the formal and informal organizations of the workers.

Reported observations of the phenomenon are common. Whyte (*1113*) observed a high degree of frustration, emotional tension, conflict, and confusion in five groups meeting at the National Training Laboratory. In each of these groups, the high-status member avoided attempting leadership to promote attempts to lead informally by those of lower status in the situation. Such conflict did not appear in a sixth group where the formal group leader did attempt and succeed as leader.

Similar results based on surveys of Naval and Air Force organizations were reported by Stogdill and Koehler (*993*) and Scott (*918*). Again, Stouffer, Suchman, *et al.* (*1001*) observed that discussions were more satisfying to the participants when the most esteemed men were given higher status by being placed in the position of discussion leader. Similarly, a naval air squadron of high morale was contrasted by J. G. Jenkins (*576*) with one of low morale. In the high-morale group, the squadron commander and executive officer, men of high status, were also esteemed. That is, they were often nominated as individuals with whom others would want to fly. But, in the low-morale squadron, esteem as measured by these nominations was unrelated to status based on positions as commander or executive officer.

Rock and Hay (*876*) noted that when the committee leader is esteemed according to sociometric assessment, the committee is more active. Again, Palmer and Myers (*802*) reported a correlation of .38 between the effectiveness with which 40 antiaircraft radar crews maintained their equipment and the extent they esteemed their key noncommissioned officer. Bass, Flint, and Pryer (*81*) found a positive but insignificant correlation of .25 between the extent power due to status was correlated with esteem in a group and the subsequent effectiveness of the group in reaching the correct ranking of the familiarity of words.

A study by J. R. P. French and John Gyr (Institute for Social Research [*560*]), contrasted the performance of an elected and hence

more esteemed supervisor with one with lower esteem who usurped the status. Under the usurper's occupancy of the leadership position there was greater private rejection of his acts compared with those of the legitimately elected supervisor and more discrepancy between public and private compliance of the membership.

Related to these studies of the effects of status-esteem incongruence are similar analyses of discrepancies between formal and informal roles. For example, Haythorn (*486*) noted how such discrepancies affected the effectiveness of air crews.

STATUS-ESTEEM INCONGRUENCE AS A RESULT RATHER THAN CAUSE OF CONFLICT

In Chapter 14, we discussed how a formal organization with members assigned varying status arises because of the inadequacy of the informal relations based on esteem to cope with the recurrent problems facing the group. In the same way, when the formal, status hierarchy is inadequate, an informal, esteem-based organization may develop. This is particularly true when the lower-status members are in conflict with the goals of the formal organization and with the demands of the high-status members. An informal organization, uncorrelated with the formal one, may arise as a means of resisting the coercive demands of high-status members (Selznick [*929*]; Shartle [*933*]). Or it may arise if the formal organization cannot supply the membership with various rewards such as recognition or opportunity for self-determination (Pfiffner [*820*]). Or it may develop as a means of by-passing an incompetent, high-status member to achieve the goals of the formal organization (Lichtenberg and Deutsch [*669*]). The emerging esteem hierarchy will provide a more effective group for the membership than the status hierarchy. The members will group around those most able to resist the demands of the formal organization or those regarded most able to bring recognition or self-determination to the members of low status.

REDUCING CONFLICT DUE TO STATUS-ESTEEM INCONGRUENCE

PROMOTION OF THE ESTEEMED. The most obvious approach to reducing status-esteem incongruence is to ensure by proper promotion policies that the most esteemed members will be placed in the high-status positions. For example, in a large sales organization, following

the introduction of systematic merit and peer rating procedures, heavy emphasis has been placed on promoting to supervisory positions only those with demonstrated ability who are highly esteemed both by their peers and by their superiors in the company. The large amount of research interest in peer ratings in the military services and the consistent reports of the efficiency of these assessments in predicting future success as an officer (Chapter 15) implies that considerable effort is being made to promote to higher status those of high current esteem among their peers. It goes without saying that those judged most meritorious by their superiors have been most likely to be promoted (Kohs and Irle [*625*]).

The technique of moving to positions of high status those of highest esteem is practiced in many other types of organizations, including colonial administration. Thus, Selznick (*929*) noted that when continued colonial rule by a foreign power becomes difficult, natives esteemed by their countrymen are taken into the administration.

INCREASING ESTEEM OF THOSE PROMOTED. A second approach, the obverse of the first, centers on increasing the esteem of the member given higher status for particular reasons. For instance, the most esteemed inmates of a prison are likely to have antisocial values in conflict with the formally organized prison management. Rather than risk giving status over other inmates to these esteemed but antisocial prisoners, Moreno (*762*) suggested that a member with low esteem but with values and goals more harmonious with those of the prison management (such as would be true of a first offender for a minor crime) should be selected, given special training, and presumably increased in his ability to lead through enhanced esteem. The hostile occupier of a defeated foreign nation is faced with a similar task. Any members of the puppet government automatically lose esteem in the eyes of the remainder of their countrymen. Ways must be found, if possible, to enhance the esteem of Quislings.

MAINTAINING ESTEEM OF THOSE WITH STATUS. A third approach, similar to the second, involves maintaining the esteem of the high-status members. The German Wehrmacht emphasized the importance of the esteem of the junior officer in buttressing his power to lead by means of his status. According to interviews with German prisoners of war, the German soldier regarded his officers as brave, efficient, and considerate. He felt he was decently treated by them and had full con-

fidence in their abilities. The German soldier's motivation to resist surrender and his high morale seemed primarily due to his esteem of his officers (Shils and Janovitz [*952*]).

COALESCING GOALS. A fourth approach involves increasing the agreement in the goals of the formal organization and the informal. Conflict is avoided by reducing the discrepancies in the goals of the informal and formal organizations rather than by reducing the discrepancies between status and esteem. Whyte and Gardner (*1114*) suggested that the supervisor of the formal organization should make himself aware of the informal esteem hierarchy, discover the informal leader, and secure his coöperation and agreement to work toward common goals. Davis (*259*) emphasized that the supervisor can learn to use the informal organization constructively to convey attitudes, detect grievances, and maintain social stability. At the same time, he must find ways to reduce the conflicting effects of the informal organization on the supervisor's power through his position.

Many attitudes of the informal organization are already in harmony with those of the formal. Within Air Force technical units, it has been observed that informally men shared the opinion that coöperation and pride in the formal organization were desirable, and that the most able men were most valuable. What had to be overcome was the conflict in attitudes of the formal and informal organization about punishment for laxity and the desirability of high standards of performance (Anonymous [*25*]).

ESTEEM VERSUS ESTEEM

If two members both have esteem and do not share the same opinions or goals, conflict is likely, since both have ability and power to successfully influence the other members. Whyte (*1111*) noted that a split-up or factionalism in the street-corner gang might be due to a quarrel between two highly esteemed members, the gang leader and his lieutenant. Borg (*146*) reported that initially leaderless teams, teams where subsequent leadership must have been due to ability and esteem, were most effective when only one member emerged with sufficient esteem to lead the group. Teams were less effective when no one member emerged or when more than one emerged.

Esteem-esteem conflict was created in the laboratory by Walter (*1083*). Before judging the "movement" of a pinpoint of light, each

examinee was told what subjects who came from a school esteemed by the examinee had seen in this same autokinetic phenomenon. In a later session, the examinee was told that esteemed subjects from elsewhere had made the opposite judgments. The conflict aroused by the reported opposing opinions of the two esteemed groups resulted in the examinee increasing the variability of his judgments, reducing any "anchorage" he may have had in contrast to his earlier shift in judgment toward the opinions of the first-mentioned esteemed group.

STATUS VERSUS STATUS

Again, as with esteem, if two members have equally high status and do not share the same opinions or goals, conflict is likely, since both have similar power and ability through their valued positions. The classic example is that of the Roman Consuls. To avoid the tyranny of a new king, the Republic elected annually two chief executives, the Consuls, with equal power. Each could veto the actions of the other. In order to avoid the obvious conflicts, the Consuls alternated holding office every other month. However, before Rome fielded more than one army both Consuls might try to lead the same army by alternating commands every day! The Roman military disaster at Cannae in 216 B.C. is attributed to this status-status conflict (Cowell [*244*]). Confusing the picture were the veto powers of the Tribunes and the advisory powers of the Roman Senate.

Another well-known example of divided authority occurred in the Soviet army system of providing a political commissar along with a military officer for a given army unit. All went well, as long as the commissar and the officer agreed but when differences of opinion arose, it was another matter. The commissar versus the commander has had its parallel throughout history and among primitive man in the ruler-priest conflict. When the medicine man disagreed with the chief, when the prophet and the prince were at odds, when the emperor and the pope did not share the same opinions, conflict arose. Conversely, conflict is least when the ruler and priest are merged, as among the Incas or the Pharaohs. No one is left with sufficient status to dispute the decisions of an emperor who is also a god.

BUILT-IN CONFLICT. To prevent seizure of power by a single individual, checks and balances were created in the American system of government. But a price must be paid. The balanced authority of the

executive, legislative and judicial branches of our government give rise to almost continuing conflict. If the Supreme Court makes an unpopular decision, the legislature or the executive may threaten to "pack the court" or to curb the powers of judicial review. When the legislature begins acting beyond its authority granted by the Constitution, the court may invalidate its actions. The president may veto legislation to which he is opposed while the legislature may refuse to comply with the request for legislation sponsored by the president. The viability of the American government suggests that the inherent conflicts produced by the system do not reduce the three branches to impotence; rather, acceptable governmental actions are likely to be compromises, less drastic, more conservative, more difficult to enact, than would occur where a single unit of government, such as the legislature of a parliamentary democracy, holds most of the power.

EXPERIMENTAL EXAMPLE. A specific experimental illustration is provided by Levy (*656*), who contrasted air crews led in periodic discussion by their own air crew commanders with air crews whose discussions were led by clinical psychologists. In the latter air crews, it is presumed that two high-status figures were present, the air crew commander and the clinical psychologist appointed to lead the discussions. Where no status-status conflict occurred, in the groups led by their own commander, members had more favorable attitudes toward their own group and the greater improvement in sense of well-being.

RANK-ECHELON INCONGRUENCE. A type of status-status incongruence arises in military service when an officer's military rank is either higher or lower than his status in a particular working unit. Thompson (*1029*) observed in Air Force wings that staff officers at the same operating echelon as squadron commanders had higher military rank. Such an incongruency was created in a factory, when a low-status worker was assigned the high-status chairmanship at a conference with management. Anxiety and confusion resulted. Relief and satisfaction returned only after the managing director reassumed the chair (Jacques [*573*]).

CASTE, CLASS, AND EDUCATION. Still another type of status-status incongruence and resulting conflict arises when the colonial power elevates the status of colonials through education, yet denies self-government to those so elevated. A common pattern is for the leaders of modern national revolution against continued colonial rule, the

Gandhis, the Sukarnos, to be educated in the ways of the colonizers but not given the same status and privileges. The rising class in Asia and Africa of European-educated professionals has been at the forefront of the battle for independence from European rule. In the same way, white-Negro conflict in the South grows with the rise in status of the Southern Negro through education from slave to sharecropper to industrial worker, and in some cases to professional teacher, minister, lawyer, and physician.

HUSBAND-WIFE CONFLICT. The modern American family is much more likely to reveal open conflict as a consequence of the relative loss of status of the paterfamilias, the increase in status of American women and children. When father's word was law, mother and children may not have agreed with his decision but they did not dispute it. The equality of status of men and women has increased greatly the probability of open conflict within the family. A specific experimental illustration of the effects of parental disagreement on their children was provided by Meyers (*744*). When the two parents agreed on some negative command, the children were most inhibited. Oscillatory behavior and unconstructive activity resulted when opposing commands were issued by mother and father, the two equally high-status figures for the children. Disobedience was greatest when the parents issued opposing positive commands.

INEFFECTIVENESS AND INCONGRUENCE OF ABILITY AND STATUS OR ESTEEM

While the conflict precipitated by the incongruence of ability and esteem or ability and status is in itself likely to reduce group effectiveness, as outlined in the earlier argument about status-esteem incongruence, it follows also that effectiveness will be reduced when the members with power due to status or esteem lack the ability to solve the group's problems. In Chapter 7, it was argued that if a capable member succeeds as a leader, he and his group are more likely to be effective compared with a group whose successful leader is without the ability to solve the group's problems. Status and/or esteem increases the likelihood of successful leadership (Chapters 14 and 15). It follows that members with status or esteem but lacking the ability to solve the group's problems, will succeed in leading (by coercion, presumably)

but will be less effective, than members with power and ability. A group will tend to be less effective if within the group the correlations are low between members' ability and their esteem, between members' ability and their status, and between members' ability and their power or control. In the same way, as Plato recognized in his argument that the king should be a philosopher, the higher the correlation between members' status and their ability, or between members' esteem and their ability, the more effective will be the group. In the Book of Shang (1324–1266 B.C.) is the admonition that positions of high status should be given only to men of ability, for the goodness of government will depend on the ability of those filling the governmental offices. Similarly, for William James, the great changes or increases in society's effectiveness occur at those times when great ability happens to be coupled with high status. The significance of status-ability congruence was exaggerated by Napoleon into the aphorism, "An army of rabbits commanded by a lion is better than an army of lions commanded by a rabbit."

AN EXAMPLE. One obvious example of group ineffectiveness and dissatisfaction wrought when a leader's ability is out of step with his status or power occurs when one member has the ability to arouse the motivation of others, but does not have the power or ability to provide the way to fulfill the aroused drives. The rabble-rouser of a mob often has the ability to increase the drives and tensions of the membership, but at the same time often does not have the status and the organization of positions necessary to initiate structure for the mob to become effective in coping with its problems and overcoming the obstacles blocking the satisfaction of its needs. The aroused tensions are likely to result in direct aggression, displaced aggression, hysterical reactions, phantasy, or other pseudosolutions rather than movement toward solution of the members' problems.

RELATED COMMENTARY. Bennett (*113*) noted that "personal ability without control will not serve to gain coöperation or need satisfaction. The man with great talent is only in a position to demand great compensation when he is in a position of great demand through [his monopoly of the supply of need satisfiers]" (p. 5). Conflicts and resulting ineffectiveness resulting from incongruencies in status, esteem, or power to lead on the one hand, and ability on the other, were clearly expressed by Eaton (*295*) with reference to professional teamwork: "In

scientific research, a hierarchy of power, which is not sustained by real differences in skill and contribution recognized by all who work together, tends to produce interpersonal tensions and rivalries, which inhibit creativity" (pp. 711–712).

CONTRIBUTING FACTORS. A number of factors inherent in the nature of permanent formal organizations contribute to status-ability incongruence. Any society in which status accrues mainly from inheritance rather than from ability or merit has an obvious inherent source of status-ability incongruence resulting in ineffectiveness (Myerson [*777*]).

Age confounds the status-ability relation. While studies of creativity and aging suggest that abilities are greater under 40 in most fields (Lehman [*648*]), status in an organization is likely to continue to rise with increasing age (Adams [*5*]). Among the younger members, technical performance is likely to increase with experience and aging; then, with still further aging, the correlation between status and ability is likely to decrease as abilities decline and status continues to increase. Further confounding the issue, the experienced office-holder is likely to see his own performance as much more effective than the performance of his inexperienced replacement. That is, the man currently with higher status may misperceive himself to be more able than his lower-status replacement who because of his youth and inexperience may be misperceived as less able (Selznick [*928*]).

Related to the age-seniority-status-ability incongruence is the age-staff-line differential. Commonly the younger staff advisors of formal organizations have more education and knowledge about ways to handle specific problems faced by the older, line executives with higher status. Again, ability and status are incongruent. Conflict and ineffectiveness are common results (Dalton [*252*]).

AVOIDING CONFLICTS AND INEFFECTIVENESS DUE TO STATUS-ABILITY INCONGRUENCE

PROMOTE THE ABLE. The most obvious solution is to maintain a promotion policy advised by the Chinese sages, placing in higher status those of greater ability. This is a common practice. A study by Fox (357) of the promotion of enlisted men in the Army found that rank as an enlisted man correlated with intelligence and mechanical aptitude test scores, with amount of schooling, and the number of jobs held in service. Similarly, an Air Force analysis (USAF [*1066*]) noted that the

higher an officer's pilot aptitude test scores, the faster he was promoted and the higher the rank he achieved. Executive promotion in much of modern business and industry depends on tested and demonstrated ability. This is affirmed to some extent by the existence of an intelligence hierarchy of occupants of occupations in the United States corresponding to some extent with their status. Mass testing in World War I and World War II of draftees provided extensive data. A hierarchy of occupations was constructed based on the median scores on the Army General Classification Test of 88,907 white enlisted men in World War II. Examples from a list published by Super (*1005*) suggests a reasonable degree of correspondence between occupational status and ability as assessed by a standardized intelligence test.

Intelligence According to Median AGCT	*Status According to Occupation*
126–131	Accountant, Chemist
122–125	Teacher, Lawyer
118–121	Draftsman, Bookkeeper
113–117	Cashier, Radio Electrician
108–112	Printer, Electrician
104–107	Millwright, Sheet Metal Worker
99–103	Plumber, Bricklayer
95– 99	Cook, Packer
90– 94	Laborer, Barber
85– 89	Teamster, Miner

MASK ABILITY. Some bright college girls interacting with less bright college boys tend to solve the dilemma posed for them by "playing dumb" on dates. The male is of higher status, so, to avoid conflict, the female avoids displaying her superior intellect. Komarovsky (*626*) found that 40 percent of a sample of New York City college girls reported concealing their intellectual abilities when on dates. However, less of such a tendency was reported subsequently on the West Coast. It is probable that the effect would be accentuated in the South as well as related to the intelligence of the specific girls studied and their achievement in college.

Women in business and industry may face a similar dilemma, as do Negroes interacting with whites in working situations. To avoid conflict with the white of higher status, the Negro may adopt a "false feeblemindedness" to conform to the higher-status white's opinion about his

own superior intellect and thereby maintain status-ability congruence. This avoids conflict and produces groups led by those of higher status, although not necessarily of more ability; hence, such groups are not necessarily as effective as those led by more able members.

RESEARCH EVIDENCE ON EFFECTIVENESS AND STATUS-ABILITY CONGRUENCE

Three different types of research support the contention that the higher the congruence within a group between status and ability, the more effective the group is likely to be. Rohde (*881*) reported correlations of .29, .63, and .63 between the success of groups in maze learning and the adequacy of the pretest performance of the high-status member or "man in charge" of each of the groups.

In a comparison of nine orientation discussion groups Stouffer, Suchman, *et al.* (*1001*) found that members were much more likely to say they "got a lot out of the discussion" when the member of the unit chosen as discussion leader was better educated and presumably better informed and more articulate. That is, discussions were more effective or satisfying when more able men were assigned status.

Woods (*1138*) classified 386 Western European sovereigns from the eleventh century to the French Revolution according to whether they were strong, mediocre, or weak in ability. Goodness and badness, and ultimate effects, were ignored. High conformity was noted among historians in their evaluation of the monarch's brilliance or dullness and military and political abilities. Then Woods rated the realm governed by the sovereign on whether it had shown progress, no progress, or had declined. Political, economic, and material affairs were considered. While the progress of art, music, and literature were not considered, the financial, military, agricultural, industrial, public works, commercial, legal, and international progress of each sovereignty were weighed in the overall evaluation of progress. The correlation was .60 between the rated rulers' abilities and the progress of the realms over which they ruled. Able kings occurred with progressive realms. While the validity of Woods' ratings and the independence with which they were made can be questioned, the results are suggestive. The three studies together illustrate the possibilities of verifying the same deduction at the laboratory level, the field level, and the societal level, by experiment on the one hand and by historical analysis on the other.

PART VII

SITUATIONS, INDIVIDUALS, AND INTERACTION POTENTIAL

What is interaction potential?

How is interaction potential measured?

How is interaction potential affected by group size, propinquity of members, communications, member intimacy, mutual esteem, attractiveness, homogeneity, and other situational and individual conditions?

What affects the optimum size of groups?

How are size, task and effectiveness related?

How do communicability, propinquity and intimacy relate to effectiveness?

How does homogeneity affect interaction as opposed to task effectiveness?

How does increasing status differentiation or formally organizing overcome ineffectiveness?

What new problems are generated by status differentiation?

How does increased training increase group effectiveness?

What is the effect of splintering?

What other techniques are useful?

What has interaction potential to do with the growth of civilization?

What kind of leadership is demanded in emergencies?

How does interaction potential affect ability to cope with emergencies?

How is attractiveness related to stress?

CHAPTER 17

INTERACTION POTENTIAL

When the Fox first saw the Lion he was terribly frightened, and ran away and hid himself in the Wood. Next time he came near the King of Beasts he stopped at a safe distance and watched him pass by. The third time they came near one another the Fox went straight up to the Lion and passed the time of day with him, asking him how his family was, and when he should have the pleasure of seeing him.
—Aesop's Fables (ca. 600 B.C.)

Interaction between parties is influenced by a number of situational factors. Aesop's fable illustrates how one of these factors, familiarity, results in increased interaction. In turn, this increased interaction markedly affects subsequent leadership and behavior in groups. In Part VII, we propose to examine the situational factors which affect interaction, consider the consequences on group behavior, and point out ways in which these effects can be modified to promote greater group effectiveness.

In Chapter 5, interaction was defined and its relevance to leadership specified. When one member attempts to lead another, he is attempting to interact. The attempt and success of this member, his leadership potential, was considered in detail in subsequent chapters in terms of this individual and his relation to others. In order to examine a variety of situational factors affecting leadership and group effectiveness, it will be useful to conceive the same phenomena transcending the in-

dividual with a concept of interaction potential—the tendency to interact of a given pair of members of a group. No reference need be made here, as was done before, to which of the pair initiates the interaction or attempts to lead his partner.

INTERACTION POTENTIAL, COMPLEXITY, AND PREDICTABILITY

INTERACTION POTENTIAL

Interaction potential is the tendency of a given pair of members of a group to interact. When interaction potential is high, a given pair of members are highly likely to interact with each other in order to attain their respective goals rather than interact with other members or alone. When interaction potential is low, the likelihood of a specified pair interacting is low.

MEASURES OF INTERACTION POTENTIAL. As interaction potential increases between two individuals, we observe an increase in the following:

1. The probability of their interacting in a given amount of time.
2. Rate or frequency of interaction between the pair.
3. Speed of initiation of an interaction between the pair.
4. Duration of interaction between the pair.
5. The total amount of interaction in a group composed of many small pairs.

These measures should be interrelated. Indeed, Dodd (277, 278) determined the relationship of the delay in time before hearing a message and the proportion of the total interacting group who have heard the message by that time. Empirical results correlated highly ($r = .94$ and $.99$) with deduced logistic curves in community and in classroom message diffusion studies. We suspect that similarly accurate equations could be developed among the other measures of interaction listed above.

SOURCES OF INTERACTION POTENTIAL. A pair of individuals are more likely to interact if they are:

1. Members of a small rather than a large group.
2. Geographically and socially close.
3. Connected by a communication channel free of "noise" or blockage; free to contact each other rather than lacking in opportunity for contact and meeting.

4. Intimate and familiar and experienced with each other rather than distant and unfamiliar.
5. Mutually esteemed.
6. Attracted to each other.
7. Similar in abilities and attitudes rather than different.
8. More mature than young children.
9. More in contact with reality, energetic, and outward-oriented.

Other factors which increase interaction potential may include alcohol, boredom, third parties, interaction primacy, the importance of the message, the amount of situational stimulation, the time available to interact, and the amount of coördination required for completion of the task.

What in common have these situational, historical, and personal factors affecting interaction potential?

INTERACTION COMPLEXITY

One common aspect among several of these sources of interaction potential is their tendency to increase the overall complexity of the pattern of interactions possible in a group. Complexity is evident particularly for the factors of size, communications, propinquity, and coördination required for group task completion. Complexity of interaction patterns makes any single interaction more difficult to consummate. The increase in difficulty, we suggest, reduces the likelihood of interaction occurring between a particular pair of members.

If we consider interaction complexity as the number of possible combinations of interaction which may occur in a group in order for the various members to attain their respective goals, the argument that complexity increases interaction difficulty is analogous to Noble's (*787*) law relating task difficulty to task complexity. In studying individual human learning, Noble has noted that a task becomes more difficult for a group of subjects to learn, as the number of possible S-R permutations and combinations is increased. These possibilities define the complexity of the problem for Noble and lawfully determine how quickly and easily subjects can learn the task. Empirical learning data are described accurately by simple logarithmic equations of the type:

$$\text{Task Difficulty} = C \log_e \text{Task Complexity}$$

where task difficulty is measured by median number of trials necessary for subjects to attain desired performance and task complexity is equal

to $N!/(N-R)!$ and where N is the total number of choices possible and R is the number of correct choices.

Interaction complexity is especially apparent in large groups, distant groups, groups faced with tasks demanding a high degree of coördination, and groups with poor communications.

COMPLEXITY, GROUP SIZE, AND INTERACTION POTENTIAL. As will be detailed later, complexity is most clearly a direct function of group size. Considering a group as a whole, we note that the total number of combinations possible is $N\ (N-1)/2$ pairs where N is the number of group members. Among four members, *A, B, C,* and *D,* six pairings are possible, *AB, AC, AD, BC, BD,* and *CD*. Among six members, *A, B, C, D, E,* and *F,* fifteen are possible, *AB, AC, AD, . . . EF.*

A single member can pair with $N-1$ other members. In a group of four, he can pair with three others. In a group of six, he can pair with five others. At a single instant in time, any member of a four-man group has a probability of .33 of being associated with a particular other member. Similarly, in a six-man group, a member has a probability of $1/(N-1)$ or 1/5 of being paired with some particular other member. In a larger group, the complexity of pairings is greater, the probability that a particular member will pair with some other member at some point in time is lower, more choice and decision-making by a member is necessary, interaction between the two particular members is more difficult to consummate, and interaction potential is lower between them.

COMPLEXITY, COÖRDINATION, AND INTERACTION POTENTIAL. Interaction potential decreases directly with increases in combinations of possible interactions and increases in coördination required for task success. If a total of $N(N-1)/2$ interactions are required in a group under demand for little coördination, $3\ N(N-1)/2$ interactions may be required for task success in a highly coördinated group where three types or three times as many interactions are demanded of every pair of members for optimum performance to reach their respective goals.

COMPLEXITY AND PROPINQUITY. Complexity is inversely related to propinquity. We assume that social and geographical distance and other restrictions of time and space increase complexity by increasing the possibilities of intermediate links between members of a group. If two members live at opposite ends of a college campus their interactions are more likely to involve a third party than if they were roommates.

Many other physical hurdles of space and time may be interposed between communicants to reduce their interaction potential. Two homes separated by a drainage canal will have much less interaction between them than two equidistant homes separated only by a lawn.

COMPLEXITY AND COMMUNICABILITY. Interaction patterns may be more or less complex depending on the communications established between members. If members all must communicate by means of a central switchboard which can handle only one call at a time, the ensuing delays and blockage will increase interaction difficulty and reduce interaction potential.

MUTUAL PREDICTABILITY

Interaction potential is increased also if members can predict each other's behavior. The certainty, predictability, or lack of ambiguity of an interaction makes it more likely to be attempted compared to less predictable interactions.

CONNECTIVITY. Predictability is most easily perceived as varying with communication connectivity, propinquity, and, particularly, with familiarity and intimacy of members. If one member can communicate readily and perfectly with five others, he is more likely to do so than if he must communicate with five others but is uncertain about with which five to communicate. He is less likely to interact if he is uncertain about which channels to use, finds much "noise" in the channels, or does not understand easily what to say or what is being said to him.

Imperfect connectivity reduces interaction potential. If we are not sure a client will be at home when we call, we are less likely to make the call than if we are certain. If our client's understanding of the language we use is poor, complexity and unpredictability are both greater. Attempted interactions may be ambiguous or unintelligible.

PROPINQUITY. Distance between interactors may result in unpredictability and reduced rate of interaction because of greater errors and distortions which occur in interactions if they must occur over longer social distances.

INTIMACY. More intimate individuals are more likely to predict each other's behavior. Intimates respond more readily to each other's slight changes, many of which may be nonverbal. They are more "attuned." A husband can often predict what his wife is going to say before she says it. Hence, intimates will interact more than strangers.

Predictability of interaction, in turn, results in reduced interaction difficulties, increased security of relationships, and greater interaction effectiveness; matters to be considered in detail later.

SOURCES OF INTERACTION POTENTIAL

Theory, related research, commentary, and evidence regarding each observable source of interaction potential will now be considered.

INTERACTION POTENTIAL AND GROUP SIZE

"Two's company; three's a crowd" expresses an early common sense awareness of the intrinsic effects of group size on behavior. Both Plato and Aristotle recognized the significance of group size. They appreciated the need for individuals to band together for protection, yet inferred that when the organized unit was too large its complexities would yield poor laws and loss of freedom (Aristotle [*32*]).

Simmel, an early modern sociologist, noted the inherent significance of increasing members within a group. He commented on the systematic increase in complexity of relations with increasing size. In dyads (two-man groups), all interactions are direct; in triads, indirect communication becomes possible through a third party. A dyad can be dissolved by one member's withdrawing from the group; a triad will survive as a two-man group, if one member of the triad decides to leave (Simmel [*954*]). Inherent changes continue with further increases in size. For example, the tetrad provides the possibilities of two subgroups, a further complexity.

SIZE AND COMPLEXITY. As previously mentioned, complexity of interactions increases with group size. The increase of complexity of interaction with increasing group size can be stated by the mathematics of combinations. For example, each increase in size of family, Bossard (*153*) pointed out, yields a geometric increase in the number of added personal relationships. If N is family size and Y the number of possible interactions between members, then $Y = (N^2 - N)/2$. A family of 4 has 6 combinations of paired members; a family of 8 has 28. Each increase of a member brings $N - 1$ new relationships. Figure 6 shows the relationships graphically.

But many more relationships are possible in addition to single-chain links between pairs of members. Kephart (*608*) described a number of other types of combinations. If we have four members, A, B, C, and

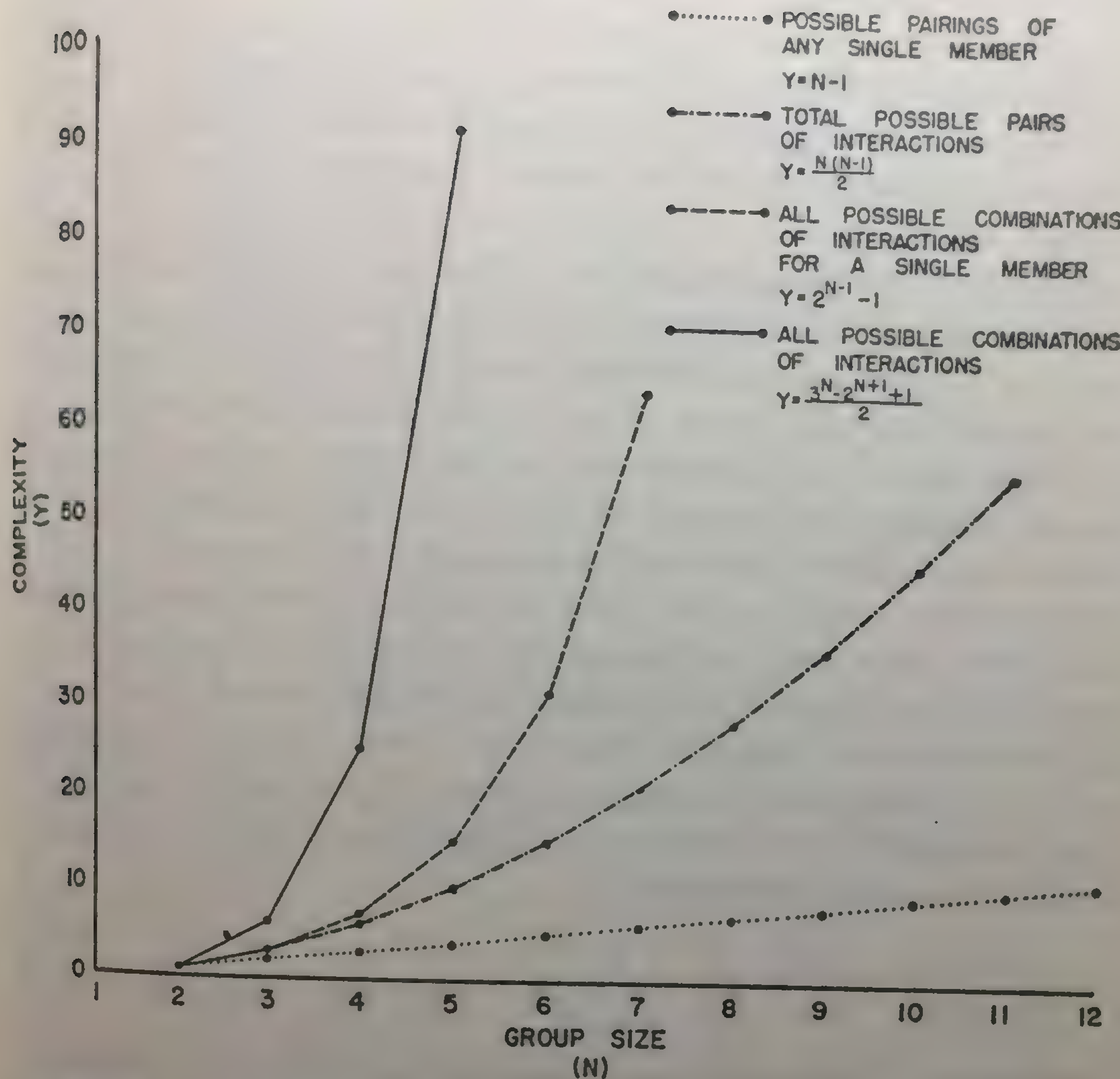


FIGURE 6. Complexity of Interaction as a Function of Group Size.

D, in addition to simple AB or CD interactions, we also have three-way combinations such as ABD in which A interacts with D by means of B. AC as a subgroup may interact with BD as a second subgroup. Also a combination may arise of the type in which one member, D, may interact with three others, ABC. The total of all combinations, Y, with increasing size, N, is given by the formula $Y = \dfrac{3^N - 2^{N+1} + 1}{2}$. There are 25 such combinations in a four-man group and 966 in a seven-man group.

Any one member is faced with many more combinations of interactions (Y) with increasing group size (N). The actual number of

combinations possible for a single member is given by $Y = 2^{N-1} - 1$. A single member of a four-man group can interact in 7 ways; he can interact in 127 different combinations in a group of 8. Thus, as shown in Figure 6, a much sharper exponential increase with size occurs in complexity when combinations other than simple pairings are considered.

EXPECTED EFFECTS ON BEHAVIOR. The nature of numbers in combination suggests, then, that as group size increases there will be linear increases in effects on the behavior of any single member in his single-link interactions with others. There will be geometric increases in these particular effects for the group as a whole. Finally, there will be much sharper exponential increases in effects on behavior involving interactions among subgroups in addition to single-link interactions.

OTHER EXPECTED EFFECTS. Size affects many other group phenomena which are related to linkages or combinations of members. For example, as we increase in size there is a reduction in the probabilities that members will mutually reciprocate choices if directed to choose one other member for some purpose (Katz, Tagiuri, and Wilson [597]). The reduction is as follows for the probability of at least one mutual reciprocated choice occurring:

Group Size	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Probability	.63	.57	.53	.50	.48	.47	.46	.46	.39

EVIDENCE. In a direct examination of the effect of size on interaction, Fischer (*332*) found that as the size of a college group increased, there was a decrease in the frequency and number of hours of contact per week among its members. Similarly, several investigators reported reduced interaction by the average member in larger decision-making groups. An increased proportion of noncontributors was observed by Bales, Strodtbeck, *et al.* (*50*) in larger groups. Hare (*475*) found less desire to participate in 12-man groups than in 5-man groups. Again, Miller (*749*) reported a correlation of .80 between the size of conferences and lack of opportunity to talk. Carter, Haythorn, Meirowitz, and Lanzetta (*198*) observed that only the more forceful individuals were able to express their ideas in 8-man compared to 4-man groups.

Indirect support is provided by Bass and Norton (*89*), who found that as initially leaderless groups increased from 2 to 12 in size, the mean leadership ratings by observers of members for two half-hour dis-

cussions decreased as shown in Figure 7 (Bass and Norton [*89*]). The results are understandable, considering the relation between successful leadership and participation in initially leaderless discussions, participation which can be equated with attempted leadership (see Chapter 5). The larger the discussion group, the lower will be the interaction potential of any single member, the less he will participate or attempt leadership, and the lower will be the leadership ratings he earns. The results appear almost linear, suggesting that complexity increases here directly as a simple function of *N*.

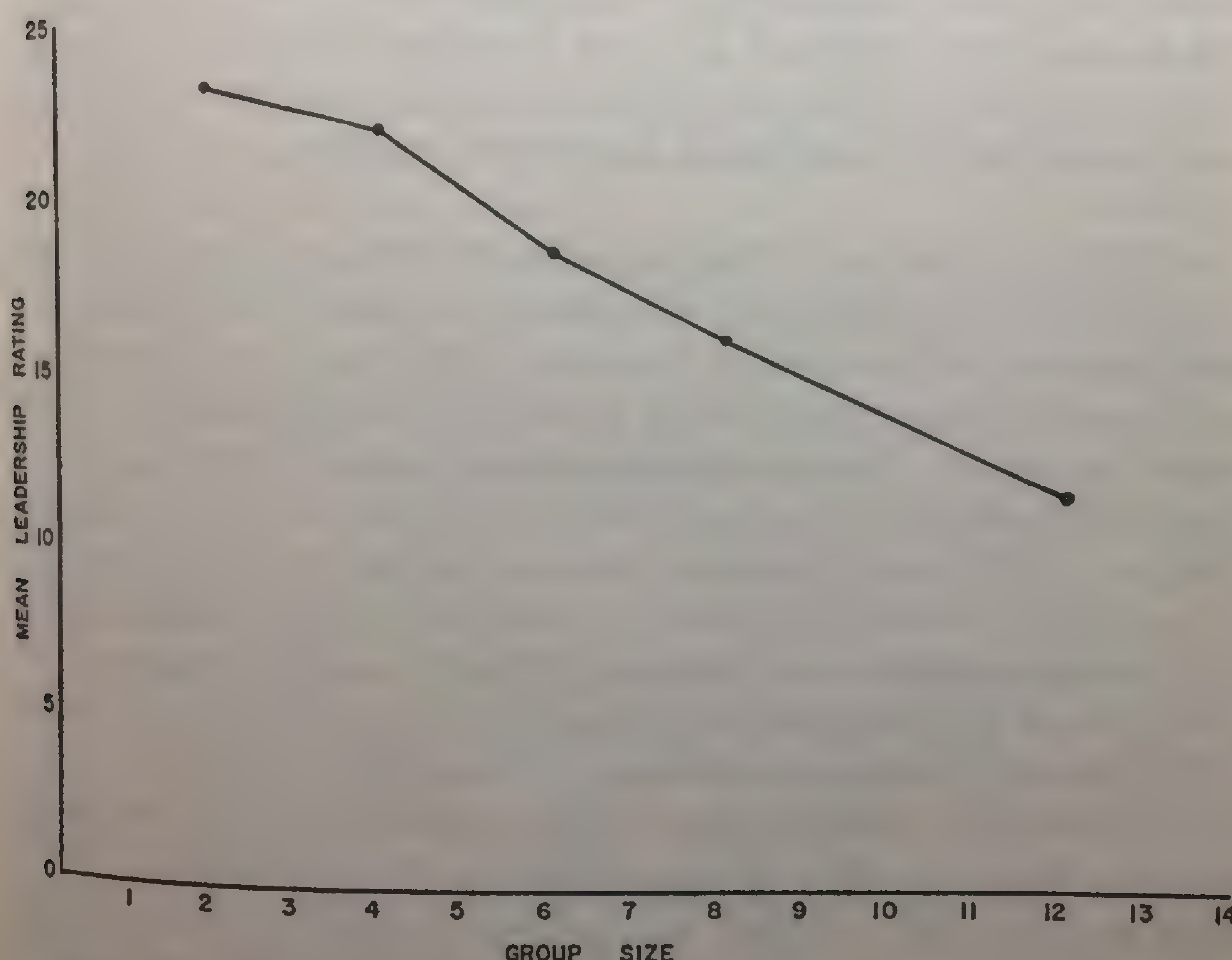


FIGURE 7. Mean Leadership Rating Earned by Participants of Groups of Different Sizes. (Data from B. M. Bass and F. T. M. Norton. Group size and leaderless discussions. *J. appl. Psychol.,* 1951, *35.*)

INCREASED SIZE DOES NOT ALWAYS INCREASE COMPLEXITY. There are various situations in which increasing size will not lead to increased combinations of possible interactions. Many of these will be treated later as organizational modifications, deliberately introduced to overcome the detrimental effects of complexity which would exist if organi-

zation was not imposed by the group members or by higher authority. Yet we must keep in mind that complexity or interaction potential, not size, is the critical element. Where size is increased in a natural setting without increasing interaction complexity, the usual effects of size do not occur. For example, in a tug of war, increasing the size of groups does not increase complexity for any single member. Each contestant is linked with only two others, no matter how many more are added. Interaction potential remains constant. For the team as a whole, there is only a linear increase in linkages with increasing size. Tug-of-war teams should not be expected to exhibit the same effects with increased size as do teams requiring linkages between all members where increased size brings along linear or geometric increases in complexity and consequent reductions in interaction potential among pairs of members.

OTHER SITUATIONAL CONDITIONS INFLUENCING THE EFFECTS OF SIZE. While the primary effects of size can be accounted for by increasing combinations of interaction, increased size also brings about other situational changes which result in less interaction. Small size yields more interaction. More interaction yields greater familiarity. Greater familiarity results in more interaction. Mentioned previously were Fischer's (*332*) results relating size, contact, and intimacy. Similarly, we note that members of smaller communities are more likely to know their congressman's name. Sixty-seven percent in rural farm areas knew the name of their congressman, yet only 23 per cent in cities over 500,000 knew their congressman's name (Orlans [*795*]).

In agreement concerning the relation between size and interaction potential is a more subjective description by Thelen (*1022*). In smaller groups, each individual feels under greater pressure to participate, for nonparticipation is more visible. He cannot "sit tight" and wait for others to do the job as he might in larger groups. Smaller groups also maintain other conditions which foster a high rate of interaction. They are more likely to be informal about rules; communications are easier to complete. There is more tolerance of individual effort and more freedom to experiment.

Gibb (*399*) hypothesized that increased group size yields increased insecurity among members and consequent increased defensive behavior. We assume that the insecurity and defensiveness, in turn, yield greater uncertainty of interaction—hence, less interaction potential. In

a larger group, we are not as sure of our effects on others and others' effects on us.

INTERACTION POTENTIAL AND PROPINQUITY

You are most likely to converse with your seat-mate in a plane, train, or bus rather than with a passenger located elsewhere. Distance between members attempting to operate as a group increases complexity of interaction between them. The time required for interaction and counteraction increases with distance between interactors. The certainty and accuracy of connection is decreased. In addition, indirect communication through third-party intermediaries increases among more distant persons. Thus, the common experience in a lecture-type class in which seating remains fixed during the semester is for a student to become acquainted with his classmates seated to the right and left of him but with few others in the class.

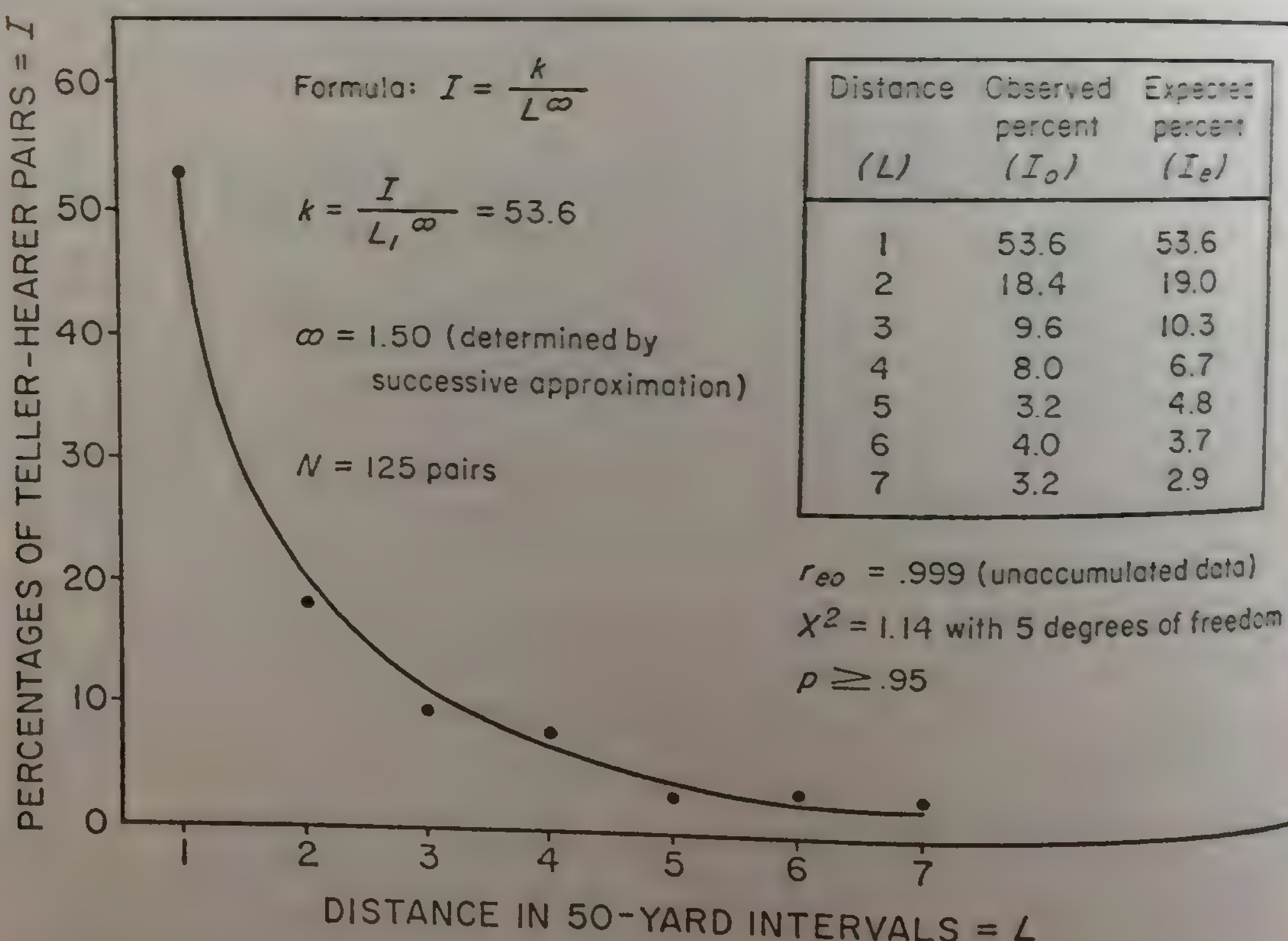
Arrangement is also significant. Starting and carrying on a conversation seems much easier in a European train compartment, where the passengers are seated facing each other, than in an American coach, in which all passengers sit facing forward. The contrast is striking on a large plane where the first eight passengers sit facing each other and the remainder sit facing forward. Conversations among all eight facing each other are common, while only seat-mates are likely to chat in the remainder of the plane.

EVIDENCE. Festinger (*318*) found that sheer physical distance between families dwelling in a housing project determined the extent to which they would interact in groups. The direction faced by the entrance to their respective homes was also important. If "I" face Oak Lane and "you" face Oak Lane, we are more likely to get together than if your entrance is on Elm Drive. Similarly, Caplow and Forman (*192*) noted that all families in the same lane in a university neighborhood knew each other, while interaction between all these in the same lane correlated .48 with their distance from each other.

An analysis of 444 plant workers disclosed that cliques of persons formed among those near each other functionally and spatially (James [*568*]). And similarly, Willerman and Swanson (*1122*) reported that sorority members who live together choose each other more (sociometrically) than those living apart. Byrne and Buehler (*181*) noted that propinquity was a strong factor in determining the growth of familiarity

among college students in a classroom. Similarly, several studies of married couples indicated that propinquity of residence played a major role in the couples' meeting and marrying.

The effects of distance on interaction were made explicit by Dodd (277). Twenty percent of the housewives in a community were told a slogan. Anyone in the community who could recall the slogan at a later time was to receive a free pound of coffee. Housewives were more likely to be told the slogan by an informant who lived close to them. The probability of interaction, P, was given by the empirical function, $P = 53.6/d^{1.5}$ where d is the distance between a slogan teller and a hearer. Figure 8 plots this relation.



Distance (L)	Observed percent (I_o)	Expected percent (I_e)
1	53.6	53.6
2	18.4	19.0
3	9.6	10.3
4	8.0	6.7
5	3.2	4.8
6	4.0	3.7
7	3.2	2.9

FIGURE 8. Distribution of Distances Between Tellers' and Hearers' Place of Residence Fitted to an Harmonic Curve. Hearers' Reports in "C-Ville." (S. C. Dodd. Testing message diffusion in controlled experiments: charting the distance and time factors in the interactance hypothesis. *Amer. sociol. Rev.*, 1953, *18*.)

DEMOGRAPHIC GRAVITATION. A number of investigators have emphasized that geographical distance reduces the likelihood of interaction, while population density does the reverse. If two members live

apart they are less likely to interact. If there are more individuals in their immediate vicinity the individual member is more likely to interact with someone, although the likelihood of any particular pairing may be reduced.

Reilly (*852*) noted that the point of equilibrium between two cities for rural retail customers could be expressed by $N_1/d_1^2 = N_2/d_2^2$ where N referred to the population of the cities and d to the distance of the rural dwellers from the cities. The likelihood of interaction of customer and merchant was inversely related to their distance from each other and in proportion to the respective city populations size. Zipf (*1154*) found the formula N_1N_2/d useful in summarizing the total amount of interaction observed between cities; for example, the number of intercity telephone calls. Cavenaugh (*210*) proposed the identical formula for describing the rate of interaction between two groups.

These functional relations of N, d, and total interaction have been organized by Stewart (*985*) into a system of equations analogous to the physical laws of Newton. These equations of demographic gravitation appear to account quite well for such demographic phenomena as farm value, property rentals, income, bank deposits per capita, death rate, retail sales per capita, and farmland value (Stewart [*986*]).

Equations are included for demographic force, demographic energy, and demographic potential. They are as follows:

Force $= N_1N_2/d^2$ where N refers to each of two populations and d the distance inbetween

Energy $= GN_1N_2/d$ where G is a universal empirical constant

Potential at any point $= 1/r \int DdS$ where D is population density, dS is the surface area covered by the population, and r is the distance from any point on the surface to the point of potential. (Potential is the total interaction potential, not the potential of a given interacting set of members.)

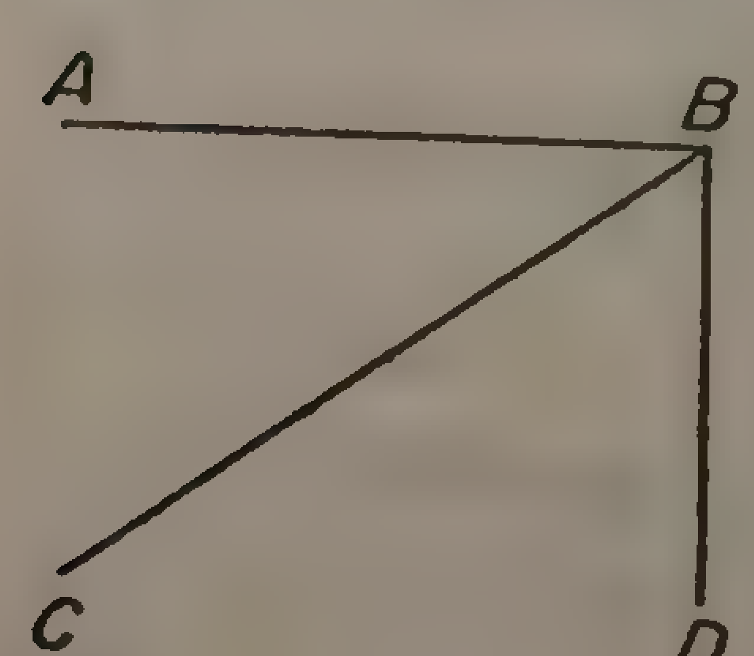
DEMOGRAPHIC GRAVITATION AND INTERACTION POTENTIAL. With reference to these equations, we are interested in the likelihood of particular pairs of individuals interacting rather than in the total amount of interaction among populations. What is the probability that one member among N_1 in one city will contact another particular person in city 2? The "force" to to act of one individual in city 1 is $1/N_1$ of the entire city. Therefore, the "force" of that one member to interact with *all* other persons in city 2 is $N_1N_2/N_1d_2^2$ and the "force" to inter-

act with a specified person in the other city is $N_1N_2/N_1N_2d_2^2$ or $1/d^2$. Thus, demographic force, demographic energy, and demographic potential increase with population density but the probability of occurrence of a *particular* interaction decreases by the same amount. We conclude that the probability of a particular interaction occurring is a function of distance, not of population density, as such. Whether Al and Ben who live in different cities will contact each other depends on the distance between the cities rather than the concentration of fellow citizens around them (ignoring transportation and communication complications to be considered next).

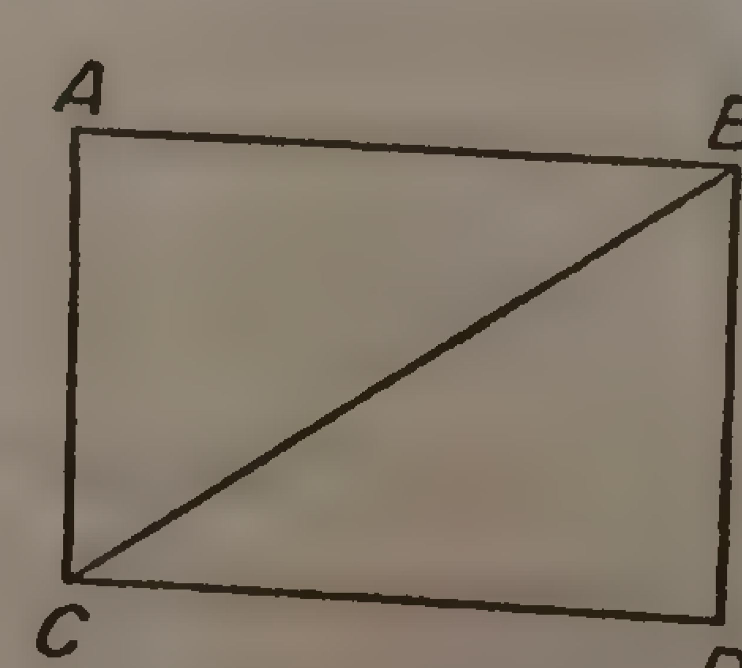
If there is interference, distortion, "noise," in the communications between two members, they are less likely to interact with each other. (They may increase in attempts, but will complete fewer interactions. At best, they may maintain communication but with greater effort.) In the limiting case, if two members are completely disconnected, their potential to interact will be zero unless indirect communications through intermediaries become possible.

INTERACTION POTENTIAL AND COMMUNICATION CONNECTIVITY

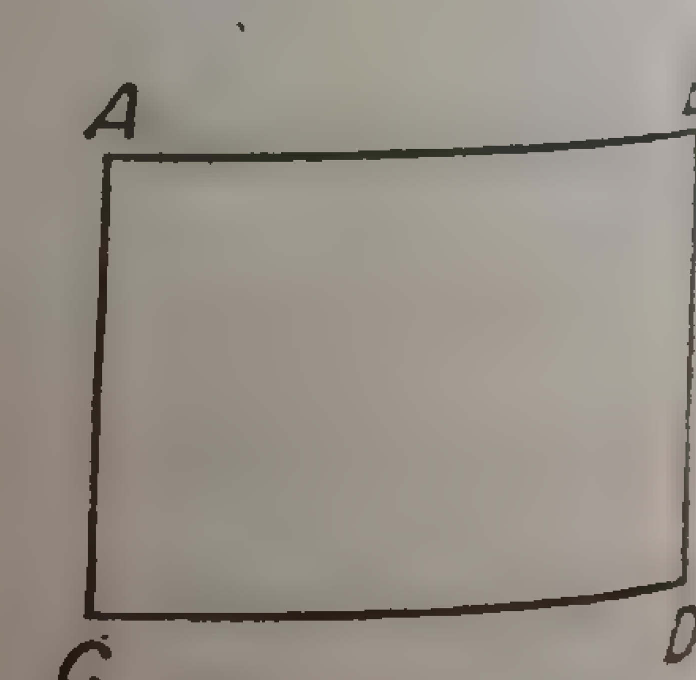
In laboratory studies of communication networks, Shaw (*938*) compared three networks of members *A, B, C,* and *D*. In the "wheel" network, *A, C,* and *D* could communicate only with *B*. Again, in the "slash," *B* was connected to the others. *C* was also, but *A* and *D* were



"WHEEL" NETWORK



"SLASH" NETWORK



"CIRCLE" NETWORK

disconnected with each other. Finally, in the "circle," each member was connected with only two others as shown.

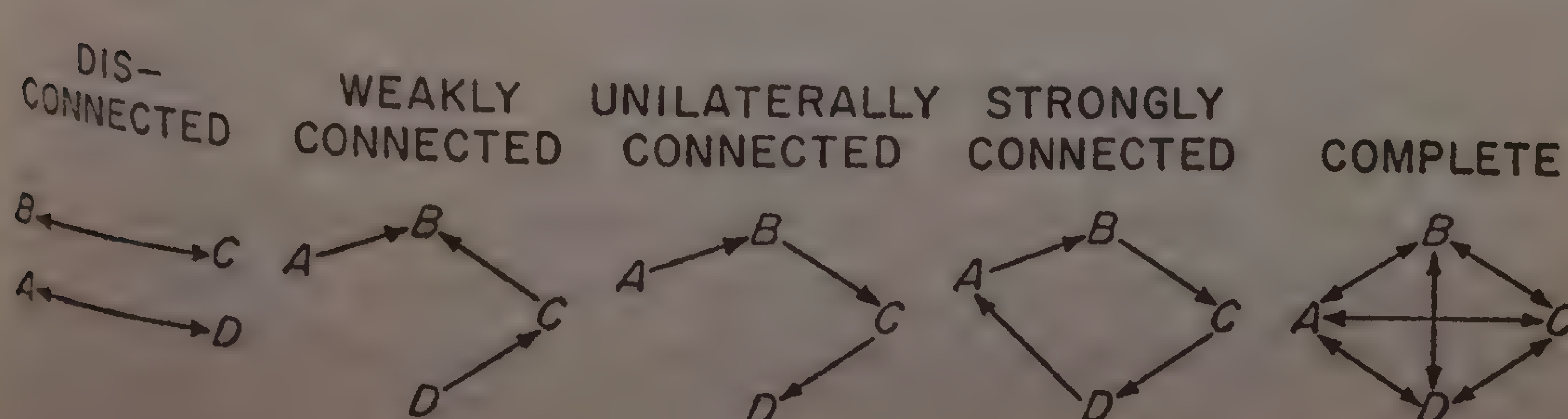
Each of these laboratory nets has its counterparts in everyday life. The "wheel" network is to be seen in the airport control situation. *A*, *C*, and *D* are pilots in the air or on the taxi strip while *B* is the control tower official. Again, the "wheel" occurs when one member of a group,

B, is asked to conduct a telephone survey of the other members, *A*, *C*, and *D*. The "slash" occurs when *A* or *D*, patients in a clinic, are interviewed separately by two physicians, *C* and *B*, who then share their information about the two cases. Again, the "slash" occurs when two members of a family, *C* and *B*, at different times meet family acquaintances, *A* and *D*, and later discuss their meetings. The "circle" may occur when "back-fence" gossip makes the round of the neighborhood and finally returns to the original source. The "circle" network also occurs in the parlor game, "Telephone," in which each player whispers a message he has heard to the next player in turn until the mutilated message returns to the player who started it.

In the "wheel" *B* has the highest "connectivity" with others. In the "slash," *B* and *C* on the whole have higher connectivity. In the "circle," all members are equal in this respect.

Shaw found that the greater this connectivity, the less time it took for a member to complete his part of the group activity. For example, *B* was fastest in the "wheel" and *B* and *C* were fastest in the "slash." In addition, *B* in the "wheel" and *B* and *C* in the "slash" communicated more items to others. And, of course, in the "wheel" *B* was the target of all interaction which he did not initiate. He was literally in every interaction. Thus, the total frequency of interaction was greater for members with more "connections." Connectivity yielded high interaction potential.

Guetzkow (*443*) examined five-man groups in "wheel," "circle" or "all-channel" networks. The laboratory problem was to find out what one among several symbols each member had been given initially was held in common by all the members. The "wheel" and "circle" networks were like Shaw's. In the "all-channel," all members were connected directly to each other. Guetzkow found that members such as *B* (referred to as keymen) most often connected to others, sent more intertrial messages.



Connectivity has been used as a central concept in a formal theory of social power proposed by French (*370*). Disconnected members cannot exert any influence on each other; interaction potential is zero between such members. Five types of connectivity are described in the illustration on page 355.

The effects of increasing connectivity in the group as a whole on the interaction potential among specified pairs of members will depend on the members specified and the particular way in which connectivity is increased. The relative likelihood of member *B* interacting specifically with *D* in the disconnected situation is .00 while it is .33 in the completely connected situation. On the other hand, the *AD* interaction changes in probability from 1.00 in the disconnected situation to .33 in the completely connected situation.

INTERFERENCE. Cartwright and Zander (*201*) suggest that the likelihood of interaction will depend upon the adequacy of technical facilities available. For example, it is expected that interaction potential would be lower in a rural area without telephones than a rural area with telephones. Similarly, the adequacy of interpreters will determine how well two individuals speaking different languages can interact with each other.

Any increased delay between action and reaction will reduce the interaction potential. Lichtenberg (*668*) found that if there was an increase in time needed to initiate coöperation between persons, there was an increase in tendency to work alone rather than coöperatively.

Naturally, interference may also be caused by lack of communication skills between the two members who are trying to interact. If a manager tries to send a message by memorandum to his foremen, the interaction will fail to be completed if the memo is written at the college reading difficulty level and none of the foremen can understand written materials above the eighth grade level. Interactions between manager and foremen are more likely to be completed if the manager knows how to write at the grade school level of difficulty and/or if the foremen improve their skill in reading.

Interference (merely another way of conceiving disconnectivity) may be reduced by preestablished forms of communication. Communications are speeded by ritual, modes of address, symbols, abbreviations, and alphabets.

INTERACTION POTENTIAL, INTIMACY, AND FAMILIARITY

"Familiarity breeds interaction." Likewise, "interaction breeds familiarity." The more intimate or familiar we are with one another, the more likely we are to interact. The more we interact, the more intimate we become. For example, when you arrive at a house party, your first tendency is to locate some acquaintances with whom to converse rather than strike up a conversation with total strangers. In the same way, you tend to be more intimate and familiar with your spouse with whom you interact daily than with a person you have met a few times. Similarly, Thelen (*1023*) noted that subgroups composed of friends rather than strangers are likely to have more energy to spend in participating.

Intimacy and familiarity are here regarded as alike, since they both correlate with interaction potential. But they are not identical, for Caplow and Forman (*192*) found that length of residence in a college community merely increased the number of one's acquaintances rather than the intensity of relationships with neighbors. We can be familiar without being intimate.

EVIDENCE. Results of many surveys and field studies support the generalization that familiarity "breeds" interaction and vice versa. Thus, the best predictors found by Fisher (*332*) of intimacy among 75 college students were the frequency and amount of hours of contact among the students. In studying a rumor's origin and spread, Festinger, Cartwright, *et al.* (*320A*) observed that people are less restrained in talking to close friends than to mere acquaintances. Similarly, Katz and Lazarsfeld (*596*) found interaction was most frequent between husbands and wives and between spinsters and parents. Again, Hare and Hare (*477*) noted a positive correlation between amount of social activity and number of family friends among 70 families in a student veterans' housing project. Number of family friends depended on length of residence in the community as well as number of children in the family (who often provided the initial excuse or basis for contact).

Faunce and Beegle (*307*) observed a change in the bases of cliques in a teen-age farmers' camp as members increased in intimacy. As strangers in neonate groups, campers cliqued on the basis of age, sex, and county of origin. But as campers became familiar with each other, homogeneity (a means of maintaining security) reduced in importance in the establishment of cliques. Newly developed familiarities became more important as the bases for interaction.

Increased congeniality of members was noted by Curtis and Gibbard (*251*) with increased experience in both voluntary and compulsory college groups. Likewise, Seashore (*922*) found that attraction for each other was greater in factory groups where members were friends for longer periods of time.

Even among ants, interaction potential may be modified by changed opportunities for contact. Mixed colonies of ants may be created by putting different species together at removal from the cocoon (Schneirla [*912*]). Different species probably become more familiar with each other's odor.

We propose two major reasons for the intimacy-interaction relation: (1) intimates feel more secure in interacting with each other than with strangers; (2) intimates can predict each other's actions, hence can interact with less difficulty.

INTIMATE INTERACTION AND MUTUAL SECURITY. Both personal experience and survey evidence emphasize the contribution made to our feelings of security by the presence of intimates. Most of us have experienced the feeling of loneliness in a crowd of persons all of whom were strangers to us. The loneliness experienced may have been greater for us than if we were isolated (Simmel [*954*]). An Air Force major remarked that he had never felt lonelier than when he returned to Japan for a rest from Korean combat, for he saw so many others in the same rest camp—all strangers—reunited with their families while he was not.

The relationship of security to intimacy may be more a matter of maturation than learning. As soon as the infant can discriminate between different persons, negative reactions to strangers begin to develop. The infant may act shy or coy when confronted with a totally strange adult. With familiarity, comes increased readiness to interact with that same adult. Feelings of security in young children increase directly with the presence of a familiar adult (Arsenian [*32A*]).

INTIMACY AND MUTUAL PREDICTABILITY. Intimates can more readily predict and understand each other's behavior; hence, they are more prone to interact with each other rather than strangers. Cottrell (*239*) subscribed to this point by emphasizing that as two members become more intimate with increasing experience, their "self-other" patterns become more "congruent." Likewise, Gibb (*399*) hypothesized that intragroup perceptual sensitivity increases with experience and member familiarity. In considering administrative behavior, Simon (*956*) sug-

gested that the more intimate members are with each other, the more insight they had into each other's personal needs and goals. Predictability is also greater among intimates because their evaluation of the esteem or personal worth of each other is more stable and consistent.

Winslow (*1129*) reported friends could estimate each other's opinions quite accurately. He obtained an average correlation of .45 between actual opinions and friends' estimates of opinions on foreign affairs, race, religion, economics, and politics. Part of this accuracy may be due to projection. Friend *A* can accurately predict friend *B*'s opinions because they are shared in common by both *A* and *B*. When asked to predict *B*'s opinions, *A* projects his own and makes an accurate estimate of *B*'s opinion. But whatever the reason, friends can accurately predict each other's opinions.

Observations of repeated meetings of eight discussion groups for 15 weeks led Theodorson (*1025*) to infer that interpersonal experience resulted in an increased knowledge of common attitudes and a feeling of homogeneity. Curtis and Gibbard (*251*) examined the process of acquiring membership in established groups, such as college fraternities, church organizations, and ROTC. Experience as a member led to familiarity with activities of the group and increased ability to understand what to do. Consistent with Simon's hypothesis, Curtis and Gibbard found an increased awareness of the esteem hierarchy (the differences in personal worth ascribed to different members) with increased time in the group.

MUTUAL ESTEEM AND INTERACTION POTENTIAL

A more general discussion of mutual esteem has already been presented in Chapter 15. Attention will be focused now on mutual esteem and interaction potential.

We are more likely to interact, the more we esteem or value each other and the more we value the interaction between us as a satisfying, pleasant experience. Thus, Blau (*136*) found that the more esteemed members of a law enforcement agency were contacted by the rest of the group more frequently. Festinger and Hutte (*322*) reported that people tend to talk least to those toward whom they feel indifferent. Some interaction between us is usually necessary before we can increase or decrease our evaluation of each other. If the interaction or its effects are unrewarding, our mutual esteem may be lowered rather than raised.

It follows that the variance in esteem of individuals should increase with interaction. Indirect support for this comes from the poll of opinions among World War II servicemen of General MacArthur and General Eisenhower mentioned in another connection in Chapter 15. Thirty percent who were stationed in the United States would like to have seen Eisenhower as candidate for President in 1948, while 20 percent favored MacArthur. Slightly more of those who had served in the European Theatre under Eisenhower favored his candidacy (33 percent), while fewer of those who had served in the Pacific Theatre favored MacArthur (14 percent). Closer contact brought a greater divergence in esteem of Eisenhower and MacArthur (Orlans [*796*]).

Mutual esteem, familiarity, and contact are all interdependent. When sorority women chose the seven most and least valued members, correlations of .48 to .58 emerged between tendency to be mentioned at all and selection as competent leader (Bass, Wurster, *et al.* [*95*]). Similar results were obtained with salesmen as seen in Table 5, Chapter 15. The tendency to be mentioned (visibility) correlated positively with sociometrically rated value, ability, and influence as a salesman. Moreno (*762*) agreed that esteem is related to frequency of contact, which in turn may be a matter of propinquity. He noted that when some members of a group live together and others do not, the former are more esteemed. Bovard (*156*) found that more pleasant interactions yielded greater attraction among members, while Festinger and Kelley (*323*) noted that unpleasant interactions resulted in no change in attraction. Longer duration of shared group friendship yielded higher mean attraction among 228 factory groups (Seashore [*922*]). Similarly, Philips, Shenker, and Revitz (*820A*) found that newcomers among groups of 7-year-old girls increased in their ability to influence (esteem?) with increase in age of the groups. Likewise, a mean increase in "likeability" among dramatics participants over an 11-week rehearsal period was reported by Timmons (*1041*).

ATTRACTION AND INTERACTION POTENTIAL

Chapter 4 provided a detailed consideration of attractiveness. The present discussion concerns a seemingly obvious relationship: the more attracted we are to each other, the more we will interact rather than act alone or with others. Studies by Gerard (*390*), Grossack (*441*) Hemphill, Pepinsky, *et al.* (*501*), and Seidman, London, and Karsh

(924) as well as many others, have substantiated this assumption. If individuals are rewarded or avoid punishment through group activity and membership, they are more attracted to the group. The more they are attracted to the group, the more they will attempt to influence each other through interaction (Gerard [*390*]). In a similar manner, Grossack (*441*) contrasted the written communications of individuals rewarded as a group, with individuals in groups, but rewarded as individuals. The former were more likely to send messages attempting to influence others. They were also more attracted to the group. Similarly, Hemphill, Pepinsky, *et al.* (*501*) noted that individuals were more likely to attempt interaction, the greater the rewards they received for task success. In a different area of study, Seidman, London, and Karsh (*924*) observed that more active union members are much more convinced in the value of union aims and operations. This is probably true about members in most voluntary organizations. Conversely, the apathetic masses in most voluntary groups are both inactive and relatively disinterested in the means and ends of their groups.

INTERACTION POTENTIAL AND HOMOGENEITY

We interact more with those like us than those unlike us. Homans (*537*) subscribed to a similar proposition. The more equal two members are in "social rank" the more likely they are to interact. Similarly, Seagoe (*921*) commented ". . . likeness is of greater importance than differences in social attraction." In industry, Pfiffner (*820*) suggested, employees of the same age and seniority and doing the same work tend to associate together. In offices, similarity of age, clothes, physical attractiveness, marital status, education, and race usually determine who groups with whom.

We observed earlier that unfamiliar campers tend to associate, at first, on the basis of homogeneity of sex, age, and place of origin (Faunce and Beegle [*307*]). Similarly, interaction among neighbors was found to be much higher in a university community where families were homogeneous in occupation, number of children in the family, length of residence, and type of housing, compared with unselected more "normal" neighborhoods. This high rate of interaction between families seems to occur most particularly whenever neighborhood and interests coincide (Caplow and Forman [*192*]).

Much of the correlation between homogeneity and interaction poten-

tial may be due to other situational factors associated with homogeneity which increase the rate of interaction. These include attractiveness, lack of size, intimacy or familiarity, propinquity, and connectivity. For example, communication is freer and easier in homogeneous groups. Any discussion of homogeneity and interaction potential must consider their mutual relations with these other factors.

HOMOGENEITY AND ATTRACTION. A large number of studies indicate that like people group together, unlike ones do not. Heterogeneity often reduces potential interaction to zero. James (*568*) found industrial workers banding together on the basis of sex. Males formed their own cliques as did female workers. Boys 12 to 17 in summer camp, when permitted to select their own companions, tended to select friends of their own chronological age. Within this chronological age, they tended to choose boys close to their own mental age. Boys who became best friends were closer in mental age than chronological age (Partridge [*807*]). Hubbard (*550*) found mental age more important than chronological age among nursery school children in their choice of playmates. Preschool children form into groups homogeneous in esteem, intelligence, and family income, according to Moreno (*761*). Women students indicated they would most like to "keep in touch" after college with other girls of the same scholastic interests and socioeconomic status (Lundberg [*684*]). Likewise, Furfey (*381*) observed that pairs of boy friends were similar in age, size, and intelligence. Goodnow and Tagiuri (*423*) reported that boys tend to choose as roommates others of their own religious denomination and also expect to be chosen on this principle. Again, when 75 men in a sales training class were asked to indicate with whom they would prefer to work, they more often chose others in the class who were similar in tested temperament (Ream [*849*]).

Once more, we suggest that the preceding results stem from interpersonal security and interpersonal predictability increasing interaction potential. Both are likely to be greater among homogeneous persons, contributing to their tendencies to interact with each other. We are more secure with those like us and we can predict and understand more readily another member's actions in homogeneous groups. Member *A* can predict member *B*'s behavior because *B* is like *A*. Member *A* can be accurate about *B* merely by projecting his own characteristics.

HOMOGENEITY, ESTEEM, AND ATTRACTION. We also are more likely

to group together with those who are like us or who we think are like us because we esteem others the more we think they are like us. "I like him who is like me. I dislike him who is unlike me" (Kallejian [*586*]). Davitz (*262*) found summer camp children valued most other children they judged to be most similar to themselves in activity interest. (Actually, those highly esteemed were not any more similar in interests; they were merely judged to be. Thus, children judged themselves and the highly esteemed to be more similar in interests than they actually were.) Again, Fiedler, Warrington, and Blaisdell (*328*) noted that fraternity men perceived group members they liked best as more similar to themselves than group members they liked least. Lundy, Katkovsky, *et al.* (*685*) obtained similar results. Moreover, they found that what subjects like about themselves is similar to what they find in those individuals they like. What they dislike about themselves is similar to what they find in others they reject. In *Q* sort analyses to study factors in the choice or rejection of friends, Shapiro (*931*) found that we tend to choose friends whose "real" and "ideal selves" are like our own. This is more likely the more we are satisfied with ourselves. Jahoda (*566*) reported that in judging the photographs of other persons, subjects tended to associate favorable personal characteristics with those photographs of persons supposedly holding political attitudes which the subjects approved. "If he shares my attitudes, he is a more intelligent, better-looking person."

Consistent with these findings is the proposition that newcomers are more likely to be accepted in a group the more they resemble the most valued members of the group (Moreno [*762*]).

Again, a spiral effect is involved. Because of propinquity or chance, we interact. If we find we share or we develop common attitudes we will like each other more. We will interact more. Thus, Sampson (*900*) assembled 148 undergraduate men in pairs of strangers to engage in ten minutes of irrelevant discussion. Each man attempted to predict his partner's responses to an attitude questionnaire. Results indicated that if a man increased his liking of his partner, the man predicted that his partner shared attitudes similar to the man.

The converse follows that we reject those who continue to disagree with us or who we think disagree with us. The most extensive study on rejection of deviates was the cross-cultural experiment of Schachter, Nuttin, *et al.* (*906*). Boys' clubs were assembled in Holland, Sweden,

found that following a period of "constructive interaction" in two-man teams, subjects predicted that their partners were more like them than before interaction. Also, Maier and Lewinski (*702A*) found that people assume that any collection of individuals with the same label are more homogeneous in opinion than they actually are. Or, we may actually become more alike with continued interaction (Homans [*537*]; Smith [*963*]). As eight groups interacted for 15 weeks for two hours per week, Theodorson (*1025*) noted an increased awareness of common attitudes along with an increased feeling of homogeneity. For one thing, group experiences are shared only by those in the group, so that logically some increased homogeneity should result from increased interaction.

HOMOGENEITY AND PROPINQUITY. Like people are more close together geographically. For example, boys tended to choose their chums from among other boys most proximate in class or neighborhoods (Furfey [*381*]). Boys and girls of Elmtown tended to form cliques on the basis of community status and school grade. Dating patterns closely followed. Much of this homogeneity within cliques was due to sheer opportunity, propinquity, and familiarity (Hollingshead [*531*]). Children of the same class are simply more likely to be thrown together initially. It is easier to remain in a clique, once formed, than to start out anew.

INDIVIDUAL DIFFERENCES AND INTERACTION POTENTIAL

Age, experience, intellectual functioning, and motivation are some other factors which influence interaction potential between two members.

MATURITY AND INTERACTION POTENTIAL. A certain amount of maturation is required before responses are available for interactions to occur. With an increased repertoire of responses comes an increasing rate of interaction compared to the solitary activities common among infants and preschool children. Undoubtedly, the development of verbal facility strongly influences the rate of interaction. During the first year of life there is an appearance at successive stages of various responses which might result in interaction. By the sixteenth week of life most of 107 infants observed by Gesell and Thompson (*393*) visually pursued moving people, responded to smiling and talking, recognized mother, and turned their heads at the sound of a voice; yet hardly any infants could do this at four weeks of age. During the last half of the first year,

many other social responses first appeared, such as withdrawing from strangers, adjusting to commands, eliciting attention, playing pat-a-cake or peek-a-boo.

In a survey of studies of preschool children, Murphy and Murphy (*774*) noted the occurrence, among children of increasing age, of characteristic increases in interaction compared to isolated action. For example, they described a Russian study by Zaluzhni (*1146*), who listed the following average interactions (or attempted interactions) per child during a standard observation period:

	1–3 Years Old	*3–4 Years Old*
Questions and answers	8	42
Proposals and instruction	13	19
Information	12	54
Aid, coöperation	3	12
Call for coöperation	2	14
Criticism	0	8

Parten (*804, 805*) observed similar increases among 42 American nursery school subjects. Increased frequency in associative play with each other was found with increases in age from 2 to 5. Coöperative play also increased, as did amount of leadership observed. On the other hand, isolated activity, independent and parallel play, and merely watching others play declined steadily during this period. Yet indirect evidence supports the supposition that some optimum is soon reached with increased maturity, for from the age of 7 until 19 there is a marked decline in the total number of voluntary social activities reported, according to a check list by Lehman and Witty (*650*) of 6886 youngsters. Some of this reduced rate is associated with an increase in watching athletic contests during the "teens" compared with playing games before adolescence. Environmental opportunities undoubtedly play a part here. For example, since the late 1940's television probably has affected the overall tendency of children to play with each other rather than passively watch.

Like rate or frequency of interaction, duration of interaction increases with increasing maturity. In an analysis of over 1200 Ukranian preschool groups, Salusky (*899*) found that duration of such groups increased with the age of members. One-third of children between the ages of 2½ and 4 play in groups lasting at least 20 minutes, while

hardly any groups of children under 2½ years of age last over 10 minutes.

INTELLIGENCE, MOTIVATION, AND INTERACTION POTENTIAL. Interaction potential may be lower among duller children, schizophrenics, hospitalized neurotics, overinhibited children, and those less interested in working with or for people. On the other hand, juvenile delinquents, who usually seek substitute families, should be more likely to seek interaction in peer groups. Thus, above and beyond the effects of chronological age, interaction potential is higher among children of higher mental age, according to a study of children between 2 and 3 years of age by Barker (*53*). Reviewing 6 studies, R. D. Mann (*712*) found that intelligence was positively associated with total activity rate in all 36 analyses reported.

Withdrawal tendencies by schizophrenics undoubtedly lead to a lower rate of interaction with others that may be reflected in changed social perceptivity, as noted by Whiteman (*1110*). The same may be true for institutionalized neurotics who, according to Levine, Laffal, *et al.* (*655*), tend to be less influenced by group standards. Again, Mann found adjustment correlated positively with rate of total activity in 74 percent of 42 reported analyses of the relationship.

Rosen (*885*) studied the behavior of boys in new groups, whose previous case histories suggested that they were either overaggressive (impulsive, bullying, and lying) or overinhibited (withdrawing, indecisive, enuretic, overdependent). In new groups, the overaggressive interacted more, while the overinhibited interacted less.

In Chapter 8, we noted that successful leaders differ in energy level and in tendency to attempt interactions. Any group composed of such individuals rather than those with more passive temperament is likely to be greater in interaction potential. Interaction is likely to be greater between two typical politicians waiting in the same room than for two bookkeepers.

Individuals differ in their preferences to interact rather than act under given stimulating conditions. We guess that the interaction rate would be higher among two members high in need to affiliate, or high in social service interest or persuasive interest, rather than low in such interest. Thus, Mann (*712*) noted that extroversion was associated positively with total activity rate in 79 percent of 14 reviewed analyses.

MISCELLANEOUS FACTORS ASSOCIATED WITH INTERACTION POTENTIAL

ALCOHOL. Alcohol is a depressant. It appears to inhibit social restraints. There seems to be a noticeable increase in the intensity and rate of interaction among party-goers with the introduction of alcoholic drinks. Yet as much increase in general activity probably would not occur in isolation with drinking liquor. Aether acts in the same way. Aether parties were fashionable in the early part of the nineteenth century before the use of aether as an anaesthetic. Medical and chemistry students today sometimes sample its possibilities for promoting conviviality at a party. Various specific drugs which tranquilize, cause withdrawal, or else stimulate general activity may raise or lower differentially social interaction compared with general activity. More evidence needs to be collected on this matter.

BOREDOM. Boredom may result in an increased rate of interaction. If two persons have nothing else to do in each other's presence, they are more likely to interact than if they are otherwise occupied. This may account for the fact that when music is introduced into a factory, worker productivity on repetitive, boring jobs is increased the most where opportunities for conversation have formerly been greatest (Smith [*960*]). Here it is suspected that worker interaction, growing out of boredom, interfered with each worker's productivity. Music substitutes for conversation, but does not impede work output on repetitive jobs.

THIRD PARTIES. Third parties may influence the rate of interaction between two members. Following with some modification Margolin (*715*), who has attempted to spell out some of these possibilities, we speculate as follows: If *B* and *C* are hostile toward each other and if *A* and *B* are hostile, *A* will more likely interact with *C* than with some completely neutral member, such as *D*.

If *B* and *A* are hostile and *B* and *C* are interacting to attain some goal, *A* will be less likely to interact with *C* than with *D*.

If *B* and *A* are interacting to obtain a goal, and *B* and *C* are likewise coöperating, *A* will more likely interact with *C* than with *D*.

PRIMACY OF INTERACTION. The primacy of an interaction is significant. Thelen (*1023*) commented, "Some research workers have felt that the whole course of a meeting is determined by the events of the first few minutes" (p. 277).

"First come, first served" may be modified into, "The first person we chance to meet is the one with whom we are likely to continue interacting." We are less likely to interact as much, if at all, with the second person who comes along. If *A* interacts first with *B,* he is less likely to interact with *C*. If he interacted first with *C* he would have been less likely to interact with *B*. This generalization must be qualified. If the *AB* interaction is rewarding or even neutral, its primacy leads to its continuation. Only if it is unsatisfactory to *A,* will the tendency of *A* to interact with *C* be greater (if *A* can escape from *B*'s attentions or if the effort involved in leaving *B* is not too great).

When classes are split for the first time into small subgroups on a chance or arbitrary basis, there is a strong tendency for these subgroups to reform during subsequent class periods, even though members are free to reform in new compositions of groups. Even after the effects of propinquity are eliminated, primacy is influential. A square dance class of eight couples met regularly for 12 weeks. The couples, all strangers, were formed arbitrarily into two squares of four the first week. During the subsequent 11 weeks, despite some effort on the part of the instructor to mix couples (as well as spouses), there was a remarkably strong tendency for the squares to maintain their same composition of individuals—even when some couples left the class and new ones joined.

Primacy affects interaction potential for several reasons. First, if *A* is interacting with *B,* he may not be available to interact when *C* chances to pass by. The opportunity is missed for *A* and *C* to become acquainted. If *A* had interacted with *C* first, the reverse might have occurred. Second, one feels more secure in interacting with acquaintances. The major hurdle is the first interaction. If *A* is thrown together with a collection of strangers, he must overcome his anxiety and insecurity about interacting with them. In his first interaction, say with *B,* he attains some feeling of security through familiarity. He is more likely to stick with *B,* his new-found acquaintance, than begin again the insecurity involved in attempting to interact with *C*. He now knows to some extent what to expect from *B*. Why take a chance on *C?* Simple logic also is involved. Strictly speaking and ignoring descriptions of behavior which use the concept of expectancy, event Number 1 can influence event Number 2 which follows it, but event Number 2 cannot affect an event which precedes it. The first interaction can affect subsequent ones, but the reverse does not follow.

Some experimental evidence exists on the subject of primacy and rate of interaction. For example, Hemphill, Pepinsky, *et al.* (*502*) found that an individual who had more relevant information on the first task of a sequence of tasks was more likely to attempt leadership throughout the sequence than an individual who had more relevant information only on a later task in the sequence.

OTHER FACTORS. Other situational factors which influence the interaction potential among members of a population include message potency, amount of stimulation to act in the environment, the amount of time available for interaction (Dodd [*278*]) and coördination required for task success.

In studies of message diffusion, initiated by leaflets dropped by airplane, Dodd noted that some messages are often retold while others are not. The potency of a message could be assessed by determining the number of persons informed by the average teller of the message.

If more leaflets are dropped on a community, more interaction will occur. In line with Fechner's law, $S = K \log R$, it was found that successively doubling the number of leaflets per person increased in equal increments of about 9 percent the proportion of the community who received the message.

An *S*-shaped logistic curve describes the number of interactions which will occur in a community in a given amount of time after the onset of initial stimulation. The curve rises slowly at the beginning when few tellers are active. It accelerates to its maximum slope when half of the community knows and half does not know; then it decelerates as the remaining nonknowers become harder to find.

We assume that the rate of interaction between any pair of members will increase directly with the increased need for them to coördinate their efforts in order to reach their mutual goals. For example, four couples learning to square dance will interact almost continuously with each and every other member of the square. A high degree of coördination is required in order to perform the dance. On the other hand, if each of the couples is learning ballroom dancing, no coördination between couples is required to execute the dance steps except for couples to stay out of each other's way. Interaction between members of different couples remains at a minimum. Amount of coördination required may be merely a different way of stating "amount of interaction" required to attain task success.

CHAPTER 18

INTERACTION POTENTIAL AND GROUP EFFECTIVENESS

At the top of a tree an Eagle had a nest with three eaglets. Every day the Eagle flew over the country looking for food for her eaglets. Halfway up the tree a Wild Cat and three kittens made their home in a hole in the tree. And at the bottom between the tree's roots lived a Sow and nine piglets. The Sow also went out each day to hunt food for her young.

One day the Wild Cat climbed to the top of the tree and told the Eagle that the Sow and piglets were eating away the tree roots so that eventually the tree would fall. Then the Sow and piglets would eat the Eagle family. The Eagle decided to stay home so that when the tree fell she would be ready to fight to save her eaglets. Then the Wild Cat visited the Sow and said that the Eagle was planning to catch the piglets for food. The Sow also decided to stay home to guard her family.

Pretty soon both the Eagle and Sow families were hungry but both the Eagle and the Sow were afraid to leave home. Finally both became so weak that they could not fight. The Wild Cat climbed up the tree and ate the Eagle and eaglets. Then the Wild Cat climbed down the tree and ate the Sow family.

It would have been very much better for the Eagle and the Sow to have talked together. Then the Wild Cat could not have fooled them.

—Aesop's Fables (ca. *600* B.C.)

We have shown that interaction potential is reduced by group size, distance, lack of connectivity, lack of intimacy, and other conditions. What are the general consequences of reduced interaction potential?

As the fable illustrates, lack of interaction may produce failure to solve problems or group ineffectiveness. In Chapter 7, it was assumed that most changes in the behavior of members of groups are a consequence of interaction. Since members tend to change toward more rewarding or effective behavior and since such change is most likely to result from interaction, it follows that the amount of interaction is positively associated with effectiveness. On the other hand, lack of interaction potential is likely to result in failure to increase in effectiveness.

SOURCES OF INTERACTION POTENTIAL AND GROUP EFFECTIVENESS

The current chapter is a survey to support the general proposition that the greater the interaction potential of a group as evidenced by the group's size, propinquity, connectivity, etc., the more likely is the group to become effective.

We shall proceed by examining separately various observable sources of interaction potential in relation to group effectiveness. We will show that all other things being equal, large, distant, disconnected, unfamiliar, and heterogeneous groups of members will be less likely to reach a given state of effectiveness compared to small, proximate, connected, intimate, homogeneous groups. Since all other things seldom are equal, we will have to qualify this generalization as we proceed to discuss each variable separately. However, we believe the qualifications themselves logically follow from the differences that exist among such diverse variables as size, propinquity, connectedness, and so on and some of their unique effects on behavior in groups, above and beyond considerations of interaction potential. For example, reduced size may be accompanied by reduced member resources as well as increased interaction potential. Increased homogeneity in attitudes may be accompanied by a restricted variety of resources as well as increased interaction potential. Increased intimacy may be accompanied by increased willingness to express hostility openly as well as increased interaction potential.

GROUP SIZE AND EFFECTIVENESS

How size influences effectiveness depends on the nature of the task and the heterogeneity in ability of members as well as on the relation between effectiveness and interaction potential. Consider three limiting cases:

1. All members are identical in resources and any one member can solve the problem faced by the group. Here, increasing group size merely reduces interaction potential and brings on all the main and side effects of this reduction. The smallest group—the single member—will be most effective. Effectiveness decreases as size increases.
2. All members are unique in resources. Each additional member makes a unique contribution to the group's progress. As size increases, resources multiply, yet interaction potential decreases. An optimum group size exists which is so large that it contains as much unique member resources as possible and so small that it does not suffer too severely from reduced interaction potential.
3. The members are homogeneous to some extent in resources. Each additional member adds less and less. A negatively accelerating increase in resources accompanies increasing size. Here the optimum size is likely to be smaller than in case 2, but larger than in case 1.

OPTIMUM SIZE

From the above cases, we can infer that there is an optimum group size which yields maximum effectiveness. The optimum will vary from one to some large number as a function of the uniqueness of the contribution of each additional member to solving the group's problems. Optimum size depends on the homogeneity of members in resources and the task demands for homogeneity or heterogeneity. Yet the problem is complicated further by the fact that heterogeneity is also accompanied by reduced interaction potential. The optimum size even in the limiting case 2 situation is probably not very large. Concentrating on this negative aspect of varied member skills and attitudes, Titus (*1043*) suggested that the optimum is larger, the simpler the tasks faced by the group. Further, he hypothesizes that the more heterogeneous the expanding membership in attitudes and abilities, the more rapidly will the group become ineffective if it continues to enlarge without breaking into subgroups. We believe this latter statement must be qualified, for

effectiveness should increase, at first, as groups grow in heterogeneous membership from single isolated individuals.

Both Plato and Aristotle recognized the existence of optimum group size. In the *Laws* of Plato, the ideal city was limited to 5040 citizens, each holding one inalienable lot of land. In his *Politics,* Aristotle declared that since good law is practically impossible in an overpopulous state, the state should be large enough to insure independence and security of its citizens and no larger. Here he expressed the idea that it takes a certain minimum number of citizens to attain task effectiveness —in this case, the goal of security. Yet, if too many are in the state, interaction difficulties increase (poor laws). He suggested a limit of 10,000 for the ideal political state.

Thelen (*1022*) proposed a group should be the smallest possible that can contain all interaction and task skills required in performance of group activity. Gibb, Platts, and Miller (*404*) agreed that the group should be large enough to permit "maximum experience background" and small enough to permit maximum participation and minimum threat. When the group is too large, interaction potential is reduced without any gain from increased resources. We miss opportunities to test and evaluate our ideas. We share less in the rewards (or punishments) and are under less control. Individual needs are less likely to be considered. Insecurity and threat are greater and there is less freedom to experiment. Gibb (*401*) emphasized the increased threat associated with enlarging groups.

CENSUS RESULTS

If, in nature, groups tend to move in a direction toward greater effectiveness or else disband (see Chapter 4), it follows that we may develop some appreciation of what are optimum sizes of groups under varying task and member characteristics, by examining the frequency with which groups of a given size appear naturally under specified circumstances. In all circumstances studied so far, the resulting frequency distribution seems to be markedly skewed to the lower end—toward the smaller sizes. For example, as shown in Figure 9, Handyside found the modal size of working groups in British industry to be between 10 and 15 and the median to be 16.8, yet the range was from less than 5 to 150. James (*567*), Doroschenko (*280*), Chevaleva-Ianovskaia (*215*), and others have found this same type of frequency distribution

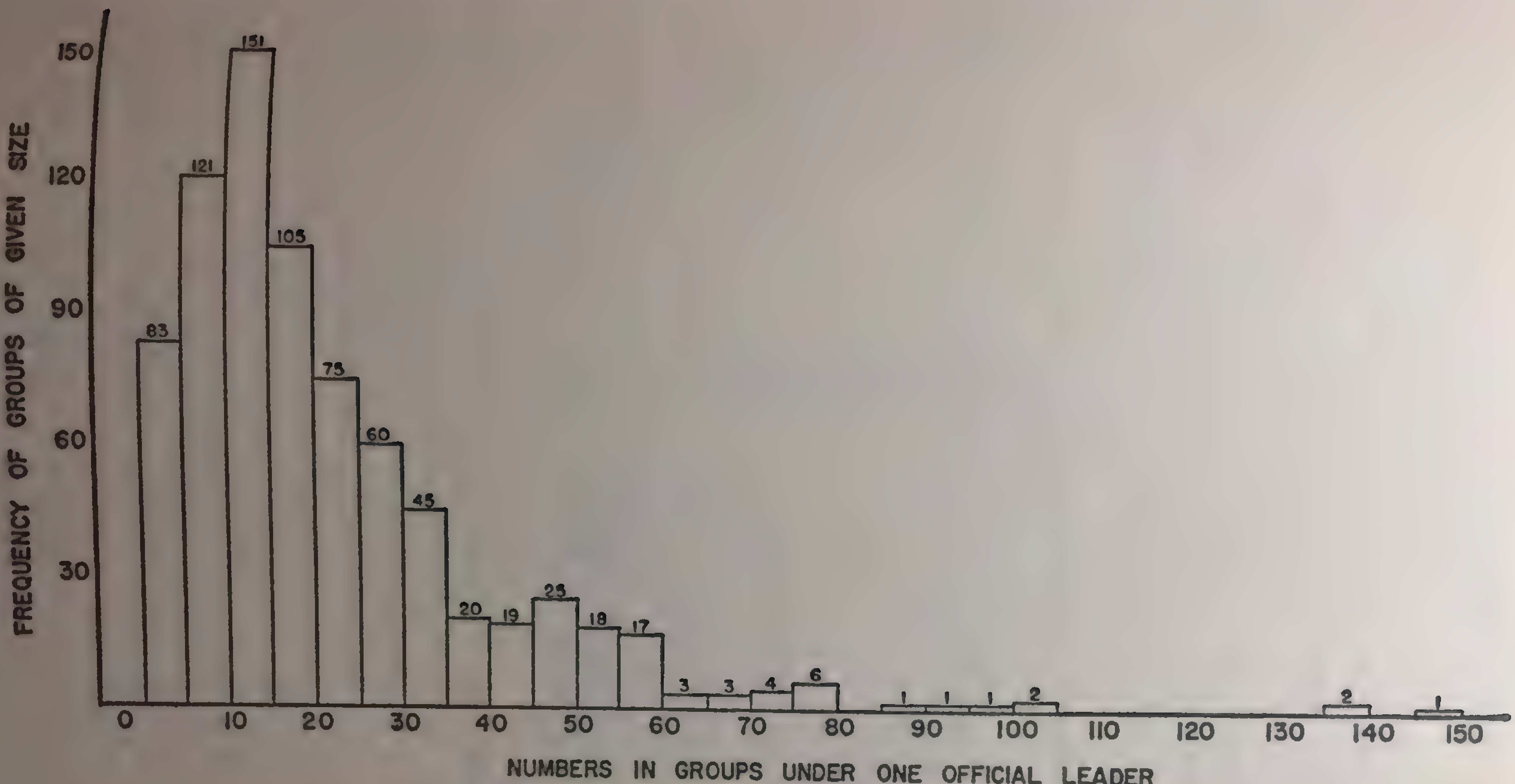


FIGURE 9. Size of British Factory Work Groups. (Data from J. D. Handyside. An estimate of the size of primary working groups in British industry. In National Institute of Industrial Psychology [Ed.] *The foreman: a study of supervision in British industry.* London; New York: Staples, 1952.)

in freely forming groups—which, as a whole, are much smaller than organized groups. If we assemble a large sample of groups of a given task and member composition, most will tend to be relatively smaller than the mean; few will tend to be larger than the mean.

INDUSTRY. Handyside found systematic variations from one industry to another in the size of the average production work group. Unfortunately, results were reported in means (Table 7) which are unduly increased by the relatively few very large groups in each distribution. (A group was a collection of workers under one official leader.)

TABLE 7. Mean Production Work Group Size in British Industries

Industry	Mean Size	Number of Groups
Engineering	20.6	250
Textiles	33.3	93
Clothing	28.4	88
Chemicals	16.8	37
Food, drink, and tobacco	25.9	36
Miscellaneous	22.2	114
Total of Groups		618
Average Mean Size	24.0	

SOURCE: J. D. Handyside. An estimate of the size of primary working groups in British industry. In National Institute of Industrial Psychology (Ed.) *The foreman; a study of supervision in British industry.* London; New York: Staples, 1952.

With much more detail, Guion (*446*) examined the specific situational and member characteristics which raise or lower the size of the industrial work group directly by a single foreman. He surveyed 940 work groups in 98 American companies engaged in textile, chemical, primary metal, machinery, and instrument manufacturing. His mean of 29 was higher than Handyside's British figure of 24.

The work group could be larger, Guion found, when workers were on incentive plans, either group or individual. It could be much larger if the supervisor was given special assistance (status variance was increased). Work groups were smaller where members worked in a gang (made less unique contributions?) rather than separately and where the employees were more skilled.

Of 22 companies surveyed by Balderston (*42*), one-third preferred

all their work groups to be under 20 in size, while the remaining listed less than 50 as a maximum desired.

NONWORK GROUPS. Kiev children from families under strong revolutionary influence of the late 1920's (free marriage, little family life, absence of religion) formed play groups of 10 or more; children from more traditional families formed play groups from 2 to 8 in size (Doroschenko [280]). Over half of several hundred groups of preschool Russian children observed by Chevaleva-Ianovskaia (*215*) contained only two or three children. Relatively few such freely forming play groups exceeded nine in size. In an American field study, James (*567*) observed 557 freely forming groups undergoing continuous interaction in everyday life. The average size was 3 and the range was from 2 to 7.

Among older children of "Elmtown," Hollingshead (*531*) found school cliques varying in size from 2 to 9 boys and from 2 to 12 girls. Five was the modal group for both boys and girls. Recreational groups were slightly smaller. Four was the most popular group size. For rural cliques, 3 was most typical.

Maturation plays a predominant role in determining the size of freely forming play groups. In an analysis of a sample drawn from 1259 groups of preschool Ukranian children, Salusky (*899*) found (as is shown in Table 8) an increase in group size with increased maturation. Older children could profitably play together in larger numbers. Few of the younger children could interact effectively with more than one or two other children of the same age. Following our reasoning, it would appear that younger children have less to offer each other; older ones have more diverse contributions to make.

Note how the shape of each distribution of sizes shows the same

TABLE 8. Group Size Related to Age

Group Size	Age: 1 Year, 5 Months to 2 Years, 3 Months	Age: 2 Years, 3 Months to 4 Years
2–3	67%	29%
4–5	18	40
6–7	9	19
8–10	6	7
11–20		5

SOURCE: A. S. Salusky. Collective behavior of children at a preschool age. *J. soc. Psychol.*, 1930, *1*, 367–378.

characteristic pile up of cases among smaller sizes. This consistency suggests that when experimenters wish to obtain a *representative* sample of groups varying in size, they should compose a sample negatively skewed in the same way as in the natural samples.

SMALL VERSUS LARGE GROUP EFFECTIVENESS

Generally, most studies indicate that groups below the mean in size tend to be more effective than those above the mean in size. The optimum group size in a given situation is reached quickly as size is increased. It is likely to be found close to the smaller-sized end of the distribution of all groups examined in a particular study.

SIZE AND WORK GROUP EFFECTIVENESS. Based on a number of Sears, Roebuck surveys, Worthy (*1139*) concluded that employee satisfaction (interaction effectiveness) and operating efficiency (task effectiveness) tends to decrease as the size of administrative units increases. Similarly, Marriot (*718*) found that productivity per worker decreased in automobile manufacturing as group size increased. Again, Seashore (*922*) in a survey of 5871 workers from 228 factory groups varying in size from 5 to 50 found that the more cohesive groups tended to be smaller. (High cohesiveness—the extent members were attracted to their groups—was accompanied by more effective work standards and less anxiety.) The belief that workers are more satisfied in smaller groups is also shared by Katz (*589*), based on an analysis of industrial morale.

Dickinson (*274*) pointed out that since group incentive payments in industry require mutual policing, the plan can only work if the groups are not too large. Groups must be small enough to exert and maintain group control over individual members. (A correlation of –.35 was found by Freeman and Showel (*364*) between the total influence exerted by an organization and its size.)

Smaller groups also are likely to perform faster (Lichtenberg and Deutsch [*669*]) and are likely to learn faster (Cattell [*205*]). According to Kohler (*624*), in performing short tasks depending on strength, the greater the number of members in a group the less the performance of each.

SIZE AND EFFECTIVENESS OF MESSAGE DISSEMINATION. Studies of the diffusion of leaflet messages dropped by airplane yielded related findings. One leaflet per person was dropped by airplane on each of six towns. Postage-free tracer stubs were attached to each leaflet and finders

were asked to mail back the stub. The number of mailbacks tended to increase with an increase in town size, but with diminishing increments. The more people in a town, the more leaflets were dropped, and the greater was the total response. But the mailback per capita tended to vary inversely with the town's population. It dropped from 10 percent in the smallest town to 3 percent in the largest (Dodd [*278*]).

SIZE AND LEADERSHIP EFFECTIVENESS. Less effective leadership is expected in large groups (Michels [*745*]). Even in nominally voluntary, democratic, large groups, goals are likely to be selected by the few oligarchs rather than the rank and file. The leaders of large groups are much more likely to obtain a disproportionately greater share of the rewards at the expense of the mass of followers. In time, the leader of the large group is likely to become even more self-oriented rather than task-oriented, resulting in further reductions in effectiveness. Maintaining his own position is likely to become his first goal; group task success may become secondary. Other members will be less able to replace him in larger organizations because of his control of communications and because they cannot have the opportunity to learn the skills necessary to replace him. In the larger group, communications are carried through intermediaries. The leader's sincerity and motives can be concealed more readily. Adequate publicity becomes more significant in maintaining office than effectiveness (Pigors [*826*]). Moreover, as a group enlarges, so do the possibilities of increase of conflicting subgroups that make for greater difficulty for the leader (Brown [*165*]).

SIZE AND DISCUSSION GROUP EFFECTIVENESS. Comparisons of conference and discussion groups have found dissatisfaction to be greater in larger groups. Other more indirect indications of lower effectiveness in larger discussions have also been suggested. These other indications may be causes or consequences of reduced effectiveness, or both.

Hare (*475*) noted that the amount of consensus was lower in 12-man discussion groups compared to 5-man groups. Members of 12-man groups were more dissatisfied with the discussions. He also observed more successful leadership in 5-man groups than 12-man groups and a feeling that a member's opinion in a 12-man group was less important (lowered self-esteem?) than in a 5-man group. Larger conference groups were found by Miller (*749*) to be more disruptive than smaller groups. He also reported that "sense of belongingness" in these groups

correlated –.44 with group size. Lack of opportunity to talk, highly related to group size, correlated .52 with frustration.

Sheer talking becomes more important in larger discussion groups (Hare [*475*]). We infer that in larger groups, a given member must attempt more leadership in order to achieve the same degree of success as he would need to attempt in smaller groups.

Yet an optimum (quite low to be sure) exists in the size desired for decision-making groups. They may become too small. Goldberg [illegible] found no difference in the influence of the group on individual judgments of intelligence from photographs when he compared two- and four-man groups. Probably the optimum size for most decision-making groups lies somewhere between four and eight, if personal experiences and the common practices of other investigators can be used as a guide. This does not apply where organization is introduced to counteract the effects of reduced size as was done by Air Force officer groups studied by Fox, Lorge, *et al.* (*358*). Apart from this matter of optimum size there may appear some interesting differences in effectiveness between odd-sized and even-sized decision-making groups where all members remain equal in status. Two equal subgroups of opinion can form only in the even-sized groups.

POSITIVE ASPECTS OF LARGE SIZE

In addition to increasing the variety of ideas available and therefore making large groups more accurate than small ones where a variety of opinions are necessary or quantity of ideas are important for task success (South [*971*]), there are numerous other beneficial characteristics of large organized groups which counteract the negative effects of reduced interaction potential.

For example, if we compare large with smaller industrial concerns we are likely to find higher accident rates in the smaller companies. Health hazards are also likely to be greater. The inadequate executive of a large corporation is more likely to be ousted than the small owner of his own company. The small-shop boss may supervise much too closely. Family establishments are likely to contain much bitterness and conflict (Lewisohn [*666*]). The leadership in larger organizations are freer to devote themselves to long-range planning (Ewer [*302*]). Moreover, Americans are favorably disposed toward "bigness" in business except in regard to personal aspects involving attitudes of executives

toward employees. Positive values attributed to big business include greater job security, better wages, greater plant efficiency, better products and more inventiveness (Orlans [*795*]).

PROPINQUITY AND EFFECTIVENESS

There has been little consideration of how propinquity affects group effectiveness. We expect a steady decrease in group effectiveness with increasing distance between members. National sales organizations offer an example of a group suffering the handicap of large distances between members. A relatively small number of employees are scattered throughout the country. Most communications "up" are in the form of daily reports difficult to corroborate or check because of distance. Most communications "down" are in the form of written memoranda. Physical meetings for discussion of mutual problems and decision-making are expensive to organize. Many staff services, such as personnel selection and payroll and advertising arrangements, must be conducted in whole or part by line personnel. If all members were in the same location, these functions could be carried out by staff specialists.

The only evidence and opinion reported are indirect, suggesting that influence between stimulator and target decreases with the distance between them. Clark (*222*), Lewisohn (*666*) and Schrag (*915*) have examined the matter briefly. Schrag cited a common observation that physical proximity is an important determinant of influence among penitentiary inmates. Clark found a decrease in the tendency of students to accept a suggestion that a bottle of water was odoriferous, the further away they were from the bottle. Again, some curvilinearity was observed, for the closest students were not as influenced as those slightly further away. The numbers giving a positive report sensing an odor for each successive row away from the bottle were as follows:

Row	1	2	3	4	5	6	7	8	9	10
Number Influenced	4	7	8	4	5	3	1	0	0	1

This type of study bears repeating with lecture materials and with careful random seat assignments.

Geographical or functional distance between units in a superorganization may mitigate the effects of control. For this reason, the directors of

industrial plants in a larger system are often quite autonomous due to the unwieldiness of making decisions across distances (*666*). The telephone, and eventually, closed circuit television, will probably reduce to a minimum the effects of distance on the managerial arrangements of industrial complexes. In the near future, it is probable that industrial executives will be able to meet instantly and regularly, despite geographical separation, through a common television intercommunication system.

COMMUNICABILITY AND EFFECTIVENESS

It is logical to assume that the average rate of interaction should be highest when all of the members of a group are connected under conditions of minimum interference. This high interaction potential due to easy and rapid communication among members should lead to greater group effectiveness as well as influence other sources of interaction potential and effectiveness, intimacy, predictability, and security. Many different writers, commenting on a variety of situations, share this belief.

RELATED COMMENTARY

COMMUNICABILITY AND PROBLEM-SOLVING. French (*370*) deduced that members will coalesce in opinion and will do so rapidly where connectivity is complete. Disconnectivity may or may not eventuate in congruence of opinion. In general, even where congruence finally occurs, it should take much longer to do so, according to French. Frequent personal contact among executives, staff, and supervisory personnel was regarded as essential by Learned, Ulrich, and Booz (*641*), who described executive activity necessary for organizational effectiveness. There is no substitute, they maintained, for face-to-face contact. Similarly, Roby and Forgays (*875*) deduced from a problem-solving model of communications in B-29 crews that crews can "wipe out turbants" (solve problems) faster, the faster information is directed to the "decision station." Homans (*537*) hypothesized that there will be a reduction in interpersonal attraction as the frequency of interaction declines between members. Clarity of shared modes of behavior will also be reduced. He predicted that as interaction potential declines, "social ranking" (esteem and status hierarchies) will become less clear.

COMMUNICABILITY AND SOCIAL CHANGE. Social change has speeded

up immensely with the increased effectiveness of the mass radio, television, and press. A chain of communications filters down rapidly from "great thinkers" like Darwin, to "great disciples" like Huxley, to great disseminators (national columnists), to participating citizens, and, finally, to the inert masses. Yet political or social changes cannot be accomplished by mass media alone. For example, they have been found to exert minimal effects on voting behavior. In "soap-selling," the advertisement gives the "final push" to the consumer to complete an action. All the energy and habitual behavior are present. The soap advertisement merely triggers the behavior or redirects it from one specific target to another. In political or social selling, no such mechanisms may be available. You may be told to support free public education. Then, what? (Katz and Lazarsfeld [*596*]).

Negative targets are easier to hit. Radio Cairo may successfully launch a tirade against the British in Jordan which culminates in riots against the British Embassy. However, here as in most social and political action, the mass media can only begin the arousal of individuals. A mob must collect. The matter must be discussed to some extent. Leaders must arise to arouse the mob further and then channel its energies. The next-to-the-last link in the communication chain is an opinion leader of the indifferent populace. His position is most apparent in primitive countries where there is but one radio in a village which is owned by the opinion leader, or where this leader is the only one who can read. The amount of change which takes place depends on the adequacy of communications by radio and newspapers to him, and in turn, on the adequacy of his communications to the other villagers (Katz and Lazarsfeld [*596*]).

COMMUNICATION RIGIDITY. A communication system or code may be designed or develop naturally to solve certain problems. Alphabetic abbreviations, formal expressions, shortened phrases all serve an initial purpose of increasing communication speed and the specificity and accuracy of the message. If the problems are changed or vary, the communication techniques cannot be altered as rapidly. Aside from previous stores of information in the old and now inadequate language, the members of the organization are trained to use the old techniques. Also, we expect the old language. We base our predictions on it. To find it changed may lead to conflicts arising from our inability to predict what the new language will mean to others. The net result is the maintenance

of older ineffective methods and consequent loss of communicability. In written documents, this is seen in the language of law or religion, government directives ("federalese"), business letters, scientific writing, after-dinner speakers, and political oratory.

Interaction effectiveness is also reduced, according to Riecken (*861*), when the situation impels politeness and friendliness, preventing the ready communication of hostility and antagonisms. Everyone is made unhappy by "bottled-up" conflicts.

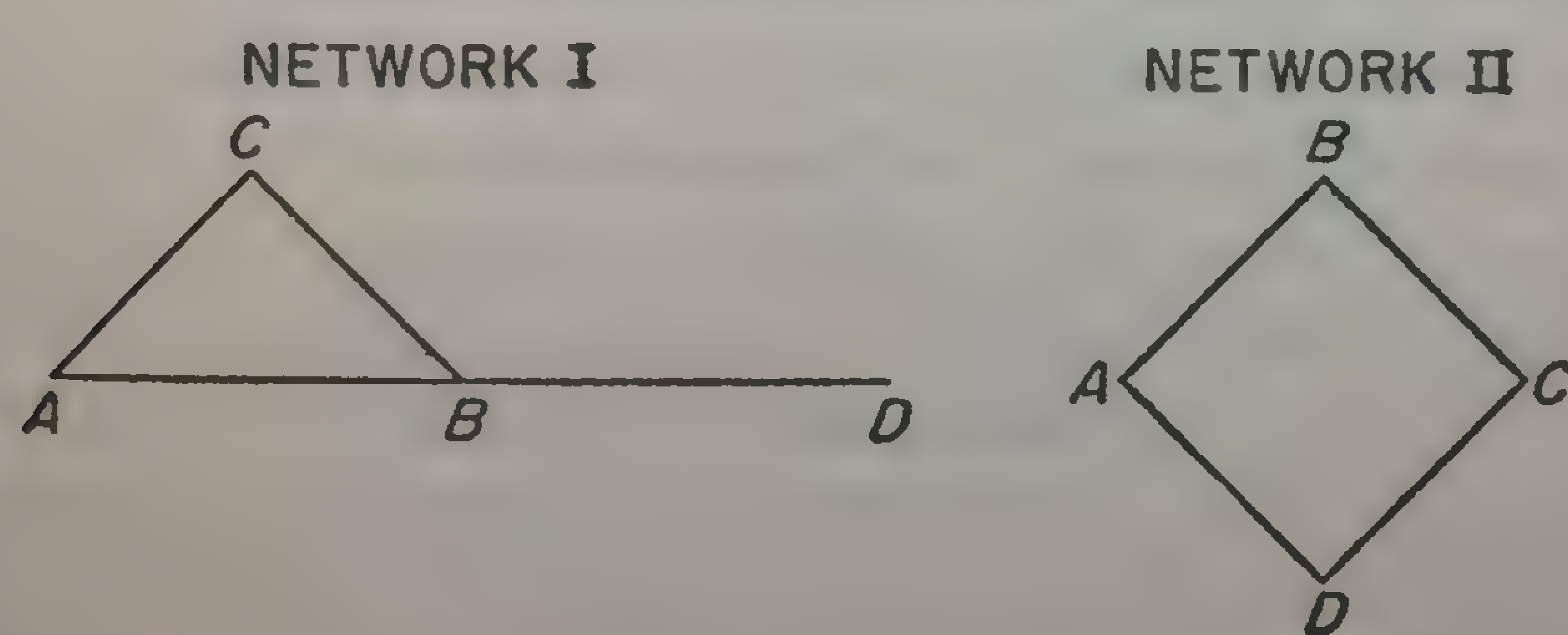
SOME EMPIRICAL RESULTS

A wide variety of studies have support given to the proposition that reduced communicability reduces effectiveness. In a sociololgical report on maintenance in four medium bomber wings, Bates (*97*) inferred that the two higher performing maintenance systems had more contact between subgroups. Phillips (*821*) found that among 24 groups of five third-graders playing a modified version of "Twenty Questions," task efficiency correlated positively with the amount of task oriented communication and interests in discussing the question. In the same way, Torrence (*1049*) noted that plane crews simulating survival and escape after being downed in enemy territory were most likely to survive and escape if communications were resumed among the scattered crew members, leading to a clarification of the situation for them. In still another type of analysis, a survey of 500 work groups suggested that communication ease resulted in efficiency (Bass [*63*]). Similarly, in interviews of members of Naval Research Laboratory teams engaged in a series of ordnance tests, Weschler and Shepherd (*1102*) observed that when the existence of difficulties of communication were expressed in interviews, there was also likely to be found a lack of understanding and satisfaction.

COMMUNICATION NETWORKS. Bavelas (*99*) initiated the study of communication nets with a technique permitting communication among members only by the passage of notes or preprinted materials. Communications between any pair of members can be blocked to create the desired permissable network of communications. Followed up by other observations, such as Heise and Miller (*491*), Leavitt (*642*), Christie, Luce, and Macy (*219*), Gilchrist, Shaw, and Walker (*408*), Guetzkow (*443*), and Shaw (*938, 939, 940, 941*), this series of experiments offers much evidence that the arrangement of communication channels to

raise or lower the average interaction potential among pairs of members strongly influences the group's task and interaction effectiveness.

Connectivity does not increase for any single member or for all members in a simple fashion with changing networks. The nature of the task complicates the effects of arrangements even further. The amount of previous structure, the uniqueness of the problem solution, and the number of decisions to be made determine the behavior that will occur in various networks (Heise and Miller [*491*]). Simple statements concerning arrangement and effectiveness usually are not adequate. For example, in both networks *I* and *II*, four of six possible channels are open. Yet the member behavior is likely to differ in the differing arrangements, while the percentage of connectivity is the same. In network *II*, the interaction possibilities are identical for all four members. In network *I*, *D*'s position is least connected, while *B* is most connected. Variation among the members in status and in satisfaction is more



likely in network *I*, where some members are more connected than others and therefore are higher in interaction potential. Such members should be in a better position to reduce their needs. Effectiveness should be greater for them. Thus, Leavitt (*642*) found that central persons, more connected with others than peripheral members, were more satisfied with their jobs and with the job done. For these persons, the interaction was more effective. More specifically, Trow (*1058*) indicated that the satisfaction of "central" personnel was due mainly to their access to information rather than their greater opportunity to interact, if desired.

There is only one possible 100 percent connected network for a group of a given size—the "all-channel" or "comcon" arrangement. Greatest effectiveness tends to be found most often with this particular network compared to others of lower connectivity. For example, inspection of

data from Shaw (*941*) suggests that above and beyond variations related to leadership style, the "comcon" net required less time per problem, produced more messages (which may or may not be regarded as a criterion of effectiveness), yielded fewer errors, and was more satisfying. Shaw and Rothschild (*943*) report the same results where groups were tested on ten succeeding days. In both bases the group had to solve arithmetic problems. Similarly, when Heise and Miller (*491*) compared five types of these networks, the most effective system occurred with an open circuit where all members could listen to all others. While Guetzkow (*443*) found the "all-channel" network to be slower initially, again satisfaction was higher and more messages were transmitted.

COMMUNICABILITY AND REINFORCEMENT. The "effects of effectiveness" depend upon the amount and accuracy of communications among members; consequently, the amount and accuracy of communications determines the extent to which the group profits from its mistakes, changes its behavior, and strengthens the most efficient modes of attack on its problems. Hawkes (*484*) noted that the effect of reward on behavior in groups depended on the ease of communications within the groups. The more physical restraints were imposed on communications. the less behavior was changed by rewards. In the same way, Jackson (*564*) reported that increasing communications among professional workers in child welfare agencies increased the relation between the extent a member is attracted to his group and his esteem by others of the group. Again, Scott (*920*) found in examining the social reinforcement of personal values in 14 groups that under conditions of intense interaction and ready communication, an increased relationship appears between the quantity of members in a group who profess a value and the resultant intensity with which it is held by those who profess it.

COMMUNICABILITY AND ESTEEM. The adequacy of communication has further indirect effects on effectiveness. If increased communicability between high- and low-status individuals gives the high-status members more esteem, then the increased contact should produce increased effectiveness. We expect that a group will be more effective the more its high-status members (those whose positions are valued as sources of reward or punishment) are also highly esteemed (valued as personal sources of reward or punishment). Increased communication does have the effect indicated, for Campbell (*185*) found correlations ranging from .20 to .40 between the extent a submarine officer was

esteemed by his subordinates, and the amount of time he spent consulting with them.

INTIMACY, FAMILIARITY, AND EFFECTIVENESS

Since intimacy results in greater mutual security and predictability and greater interaction potential, we expect intimate groups to be more effective. Gibb (*399*) suggested that increased familiarity among members should produce a reduction of threat and the consequent inefficient defensive behaviors. Likewise, Thelen (*1023*) has proposed to make use of familiarity to improve the efficiency of group performance. Meetings can best be organized in neighborhoods, he suggested, by having friends call on other friends. This will be more effective than a mass impersonal appeal to meet. If a large meeting is to be split into subgroups, the subgroups should be composed of friends. Friends will be likely to spend more time in dealing with whatever tasks are involved. Strangers will participate less and need to devote more energy to the problems of developing security and predictability. Friends can express their real feelings more easily and are threatened less and supported more by other friends. Riecken (*861*) shared with Thelen the expectation that friends can rid themselves of hostile feelings more readily than strangers banded together to solve a problem.

SOME EMPIRICAL RESULTS

Some direct and indirect survey and experimental evidence supports the proposition that familiarity yields effectiveness. Husband (*557*) reported that pairs of close friends took less time than pairs of strangers to solve problems in code, puzzles, and arithmetic. Goodacre (*418*) found that among the more effective of 26 infantry squads in handling field problems, there was a greater tendency of squad members to socialize together after hours. Among an additional 63 squads, field performance was more satisfactory where members accurately perceived the esteem hierarchy in their own squad (Greer, Galanter, and Nordlie [*435*]). The authors indicated that the reason their results differed from those of Bell (*107*), who did not find any such relation, was because their groups were composed of intimates, while Bell had studied neonate groups. They suggested that only among intimates does accurate preception of the esteem hierarchy produce effectiveness.

B-29 bomber crews in Far Eastern combat improved on a variety of

criteria of effectiveness with increased time in combat reversing slightly near the end of their tour (Knoell, French, and Stice [622]; French, Stice, and Knoell [375]). Much or all of this increase in coördination, dependability in emergencies, adequate care of aircraft, successful completion of missions, time accuracy, and other measures of effectiveness might be due to specific task learning, but we guess that growing intimacy among crew members with time in combat might also have contributed to increasing efficiency. In another area of research, Seashore (922) noted that factory groups were more likely to be attractive to their members (and therefore more effective) where the members had shared each other's friendship longer.

HOMOGENEITY AND EFFECTIVENESS

THEORETICAL EXPECTATIONS

Homogeneity of members in skills and attitudes is similar to group size in effect on groups. Homogeneous members will interact more, increasing both task and interaction effectiveness. Yet each additional member contributes relatively little new resources in attacking the problems of the group. Although homogeneity increases interaction and hence effectiveness, when a variety of skills are necessary to solve the problem, homogeneity of membership also may be detrimental to task effectiveness. When a single skill suffices, homogeneity will be more profitable for both task and interaction effectiveness. The optimum amount of homogeneity for maximum task effectiveness will depend on the requirements of the task. Regardless of task, increased homogeneity should be accompanied by increased interaction effectiveness. Hypothetical curves relating homogeneity to task effectiveness (taking into account that homogeneity increases interaction potential) are shown in Figure 10.

A steady increase in effectiveness in handling "single-skill" or "common-skill" tasks (such as solving arithmetic problems as a group) should accompany increasing homogeneity. For tasks requiring a variety of skills or attitudes (such as planning a military operation), the group will do less well if all members are alike in ability and attitude. Yet it will suffer from lack of interaction if members are too unlike. Hence, a curvilinear effect is predicted for complex tasks.

It follows that the more task effectiveness depends on interaction

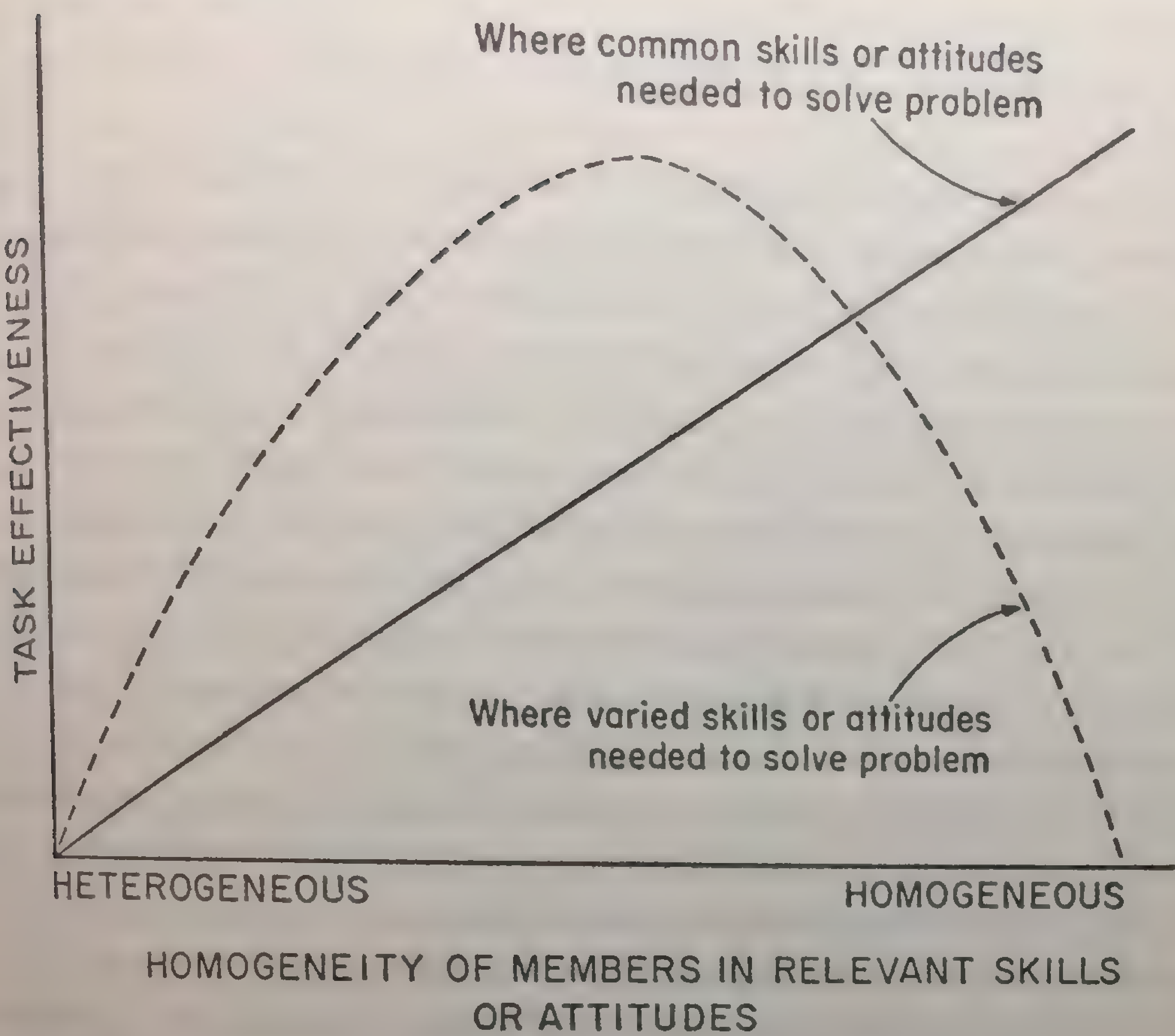
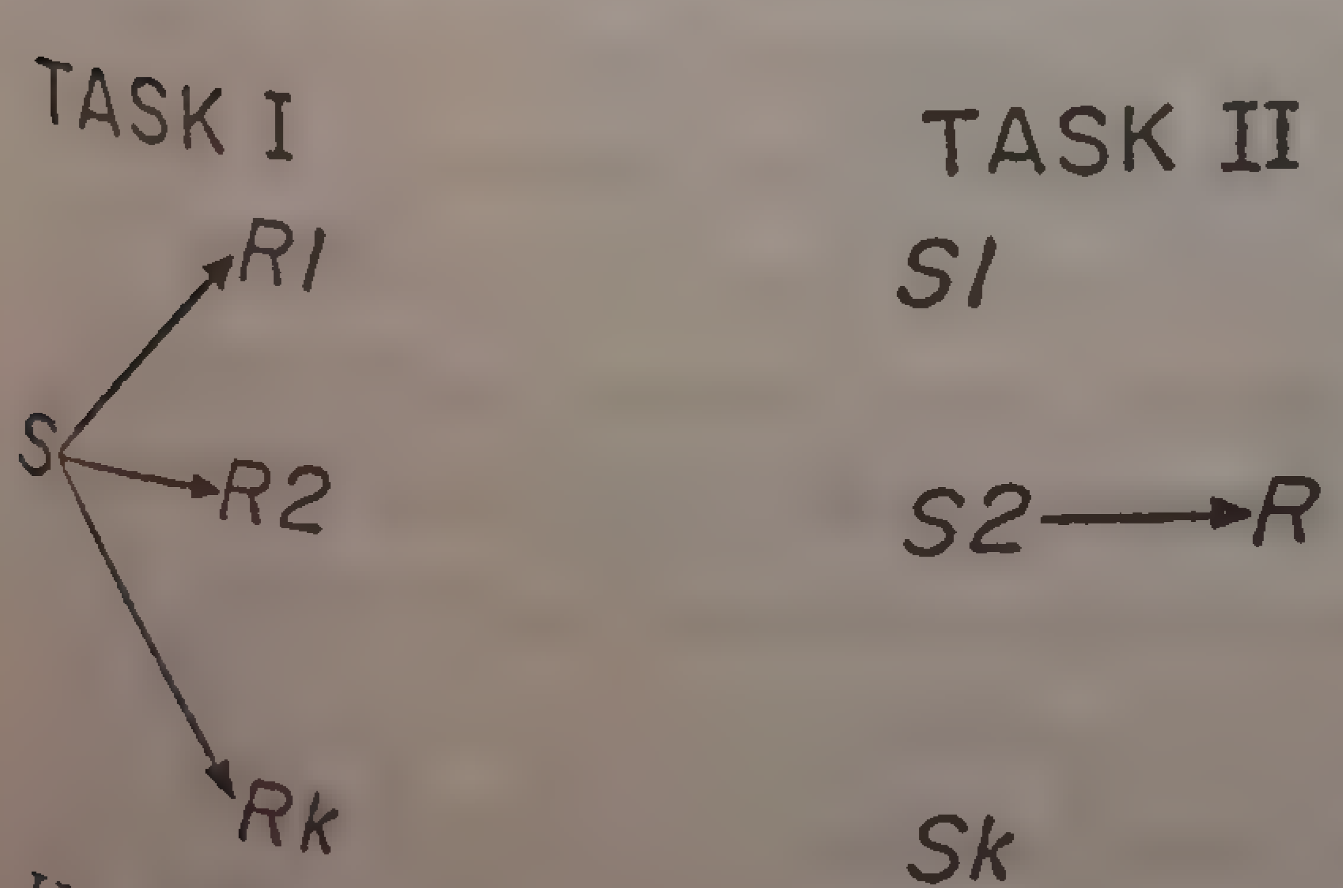


FIGURE 10. Homogeneity of Group and Task Effectiveness.

effectiveness, the more will homogeneity promote task effectiveness when the task requires members to coöperate, to display a singleness of purpose, to reach agreement on a single mode of action.

S–R RELATIONS. Conceptualization may be reduced to a matter of differences in stimulus-response relations required to solve a problem.



In task *I,* the problem is solved satisfactorily if all *k* responses are evoked by the single stimulus. The more responses, the better. The more varied the responding organisms, the more likely we are to obtain a greater variety and amount of responses. In task *II*, a single stimulus is sought, the correct decision, the correct answer to a problem. Homogeneous members are more likely to agree upon

the identity of this correct stimulus to which a single response must be made, such as, "We accept," "We agree," or "This is what we must do."

INDIVIDUALS, GROUPS, AND HOMOGENEITY. Various parts of these arguments have been voiced before by numerous commentators, among them Thorndike (*1033*) and Timmons (*1040*). Whyte (*1113*) suggested that unanimity or consensus was most likely to be achieved in such groups as the Quakers where members tend to be homogeneous in beliefs. Similarly, Cattell (*205*) agreed that low variance within groups in attitudes and personality traits would be conducive to solving interaction problems and sharing group goals. In the same vein, Lichtenberg and Deutsch (*669*) argued that to accomplish the same purpose, more coördination is required among heterogeneous members. Schutz (*917*) assumed that (1) all decisions in groups are a function of status (control due to position) or esteem (control due to personal evaluation), and (2) persons are most likely to "get together" who, in reaching decisions, emphasize either status or esteem. Persons with the same approach are more compatible. They are more likely to agree on "process problems," how personal to become, how much aggression is permitted, approved ways of achieving status, and ways to handle new problems.

Using these postulates, Schutz deduced that if members were not compatible on "process," they could not be productive. If groups lack this interaction effectiveness, they could not attain task effectiveness. He further deduced that compatible (homogeneous) groups will be particularly superior to incompatible groups on those tasks where groups are more effective than individuals working alone. These tasks have been specified by Thorndike (*1033*). Groups will tend to be superior in situations in which productivity of ideas or responses yields task success; individuals are just as effective alone when a single solution has to be selected. The greater the range of responses required, the greater is the superiority of the group in mental work over the individual working alone. Thus, groups are most superior on free-completion problems and least superior on true-false problems requiring a single response. Combining Schutz and Thorndike's conclusions, we infer that heterogeneous groups should do best on tasks requiring a wide range of responses, such as answering essays. Homogeneous groups should do best when a single response can solve the group's problem.

RELEVANCY. Naturally, the characteristics on which members differ must have some relevance to the tasks in question. Member differences in hair color may be utterly irrelevant in solving arithmetic problems. If they vary widely in knowledge of algebra, their behavior as a group is likely to be quite different in solving arithmetic problems than that of a group homogeneous in algebraic knowledge—although both groups may behave identically in playing basketball. In simulated survival studies Torrance *et al.* (*1051*) found groups of highly objective members appeared compatible. The same was true for groups of highly subjective members. Yet groups of highly individual members did not get along as well. Whether homogeneity was conducive to group performance depended on the traits on which members were similar.

DESCRIBING HOMOGENEITY. Homogeneity may be expressed in terms of statistical variance. Depending on the task, the variance of members in esteem, status, and habits or behavior tendencies, may be significant. Included in habitual differences are differences in abilities, attitudes, and generalized personality traits. We guess that groups heterogeneous on one variable, will tend to be heterogeneous on the others. For example, if we assemble groups heterogeneous in ability we are likely to find them heterogeneous in attitudes also. Therefore, we should expect more interaction difficulties in such groups on both accounts. Wilkins (*1118*) interviewed 300 British war veterans concerning their vocational goals. Those men higher in intelligence were concerned with long-range goals: security, variety, opportunities for advancement and growth. Those lower in intelligence were more concerned with short-range matters: workmates, hours, pay, vacations.

There are other, more complex ways of examining variations among members within groups. Group performance may depend on the mean ability of subgroups. Group performance may depend on which members are assigned which operations. Group performance may depend on the way specific members cluster in their evaluations of each other (Roby [*872*]). Complicating the matter even further is the relation between mean ability and variance in ability. Especially if a ceiling exists on ability, groups of highest mean ability must be homogeneous in ability—all members high. The same is true at the other end of the scale. Homogeneity in ability is least likely to occur naturally in the middle of the scale of the ability than at the ends. And it is important to know mean ability in order to study variance in ability. Thus,

according to Eaton (*295*), the mean ability of a professional team determines whether homogeneity or heterogeneity will be conducive to effectiveness. One good member of an otherwise mediocre team may pull along the others with him. Conversely, one poor member of an otherwise good team may cause the team to lag. Heterogeneity may be profitable in the first case and detrimental in the second. This will be considered in more detail later.

SOME EMPIRICAL RESULTS

A great many types of empirical research have given support to the contention that no single statement can be adequate to describe the relation between homogeneity and effectiveness under all conditions. A survey of descriptions of 500 work groups disclosed no correlation between group task effectiveness and homogeneity of members in education, self-confidence, and other characteristics (Bass [*63*]). Similarly, in only one of three studies of naval trainees was the hypothesis supported that groups are more effective when leaders and men were homogeneous in authoritarian attitudes (Courtney, Greer, *et al.* [*243*]). Likewise, Seashore (*922*) reported that homogeneity of industrial work groups in age or education was unrelated to their cohesiveness. Nor did Gage and Exline (*382*) find any relation between the productivity of discussion groups and the similarity of individual and group opinion.

HOMOGENEITY AND INTERACTION EFFECTIVENESS. If we now subdivide the problem, it becomes possible to offer some simpler generalizations. We will discuss, in order, the observed effects of homogeneity on interaction effectiveness, next, the observed effects of homogeneity on task effectiveness; and, finally, the observed effects of heterogeneity on task effectiveness. Direct and indirect evidence supports the proposition that homogeneity produces interaction effectiveness—satisfactory interpersonal relations, harmony, pleasantness, etc. In a psychological analysis of friends and enemies, Cattell (*202*) suggested that similarity favors compatibility. Many studies on marital happiness indicate that similarity in premarital background, common interests and attitudes are conducive to harmonious marriage (Terman [*1021*]). Moreover, happily married couples believe themselves to be more similar (Preston, Peltz, *et al.* [*838*]). Carter and Haythorn (*196*) contrasted a total of 16 experimental groups where the leaders and followers were alike with groups where they differed in authoritarian attitudes. Compared with

heterogeneous groups, homogeneous groups were observed as higher in security, goal striving, approval seeking, informal friendliness, definite leadership, morale, communication effectiveness. Conversely, observers reported that heterogeneous groups exhibited more personality conflict, competition, cliques, lack of coöperation, and differences in opinion.

Cattell, Saunders, and Stice (*206*) tested 80 neonate groups of ten men each for three hours on a wide variety of tasks and factor analyzed the results. One factor which emerged clustered together the following variables whose loadings on the factor are shown:

Variance (within a group) in sensitivity (.62)
Variance in paranoid suspiciousness (.54)
Variance in bohemian symbolic aggressiveness (.47)
Low performance on a dynamometer (.44)
Slow speed in ranking preferences (.41)
Many members rated by others as hindering progress (.38)

These results suggest that heterogeneity of members in certain personality traits produces slowness in decision-making and a feeling of hindrance.

The same analysis also found homogeneity in emotional maturity yielded greater confidence of members in each other.

Gerard (*389*) created the perception among one set of groups that members were alike in knowledge, skills, and abilities. Among other groups, perceived heterogeneity was created. Gerard found that pressure toward splintering was noted in heterogeneous groups. We infer that perceived homogeneity produced more effective interaction.

HOMOGENEITY AND TASK EFFECTIVENESS. Available evidence generally supports the proposition that homogeneity is conducive to task effectiveness under these conditions: (1) a high degree of interaction effectiveness is necessary for task effectiveness; or (2) members must coöperate to a high degree to achieve task goals; or (3) singleness of purpose is important.

Consider Grace's (*430*) results with predicting success of basketball teams. Basketball is a game with relatively little specialization of task. Especially among ordinary players, any member can play any position fairly readily. A high degree of coördination among members of the same team, a high rate of interaction among all team members, and a

high degree of need to predict each other's behavior are all features of basketball.

Each of 178 high school boys rated himself on a 20-item check list. He received a conformance score, which indicated how closely his own responses correlated with the pooled responses of all the boys together. These conformance scores were averaged for all those who belonged to the same basketball team. A correlation of .61 was found between the average conformance score and the success of the basketball teams. Grace's results appear to strongly favor homogeneity in the promotion of the effectiveness of teams engaged in highly coördinated activity.

It would be most interesting to repeat the identical procedure but using other sports, such as baseball, where interaction among all teammates is not so continuous or rapid in rate as in basketball, and soccer or hockey, in which interaction is similar to that in basketball.

South (*971*) found that committees composed of all men or all women were more efficient than those of mixed sexes. Pitting all boys against all girls produced the most highly motivated competitive groups in a study of coöperation and competition by Maller (*708*). Schutz (*917*) actually examined the relation between homogeneity and effectiveness as task was varied. He contrasted performance on an intercept problem, a plotting problem, and a coding problem. The intercept problem required agreement among subjects for each decision if the problem was sufficiently difficult. Coding required a minimum amount of interaction among members, while plotting involved some division of labor and coöperation. In line with theoretical expectations, homogeneity (defined in this study as a shared approach on how to behave in groups) was most conducive to production in the intercept problem, made less difference in production in the plotting situation, and had no effect on coding.

Havron, Fay, and Goodacre (*483*) obtained a correlation of .64 between the effectiveness of performance of 12 infantry squads and the extent to which the squad members were homogeneous concerning authoritarian attitudes. The difference between these results for infantry men and the generally negative findings on the same type of analysis reported by Courtney, Greer, *et al.* (*243*) for naval trainees, may lie in the difference in interaction among the navy units as compared with the interaction demanded for effectiveness in infantry squads.

On the other hand, Sperling (*975*) did not find any relation between

homogeneity in initial attitudes and satisfaction with final decision. He compared groups which were homogeneous in initial attitudes with groups which were heterogeneous in attitudes on the issue of faculty evaluation. No effect was observed of actual or perceived homogeneity by members on the satisfaction with the group decision, their willingness to carry it out, and their judgment of the quality of the decision.

HOMOGENEITY, LEADERSHIP, AND EFFECTIVENESS. As detailed in Chapter 9, too much ability may be detrimental to successful and hence effective leadership for at least two reasons. First, a member may be so much more able than the others that (1) he may not perceive or be interested in solving the group problem, since it is no problem or challenge for him; or (2) he may be unable to communicate on a sufficiently low level to restructure the situation successfully for the others. The person with too much ability will be less likely to share the same modes of interaction with the other members, and hence be less likely to lead them successfully.

While the successful leader must be not too much greater in ability from the rest of the group, he must be even closer to the group in attitude. Nafe (*778*) suggested that the successful leader must be in rapport with the group in order to arouse them. He must appear to share the same attitudes as the group. Thus, the demagogue often portrays himself in order to be successful (but not necessarily effective, in the long run) as a "little man," or a "man of the people," or "the champion of the common man."

Interaction effectiveness is most likely when leaders and followers share the same attitudes toward the proper way to interact. An experimental study of Hungarian child leaders indicated that a domineering child of high initiative and aggressiveness introduced into a new group with fixed "traditions" is "conquered" by the new group. He imitates the others rather than sets the pace as he did before. Only after he accepts the traditions of the new group is he able to become an order-giver again (Merei [*738*]). But, as noted earlier, evidence is mixed on the influence on task effectiveness of homogeneity of leader and follower attitudes; for we think that on some tasks, heterogeneity rather than homogeneity of leader and followers may be most profitable.

HETEROGENEITY AND TASK EFFECTIVENESS. Some attempt can be made to specify further the situations in which we expect heterogeneity rather than homogeneity to promote task effectiveness.

Cattell (*205*) hypothesized that if two groups were selected with the same mean intelligence, the group with the greater variance in intelligence would learn the task faster. We guess this would be true where learning depended particularly on discriminating correct from incorrect choices. The group with the greater variance would have the brightest members (as well as the dullest). These brightest members would be expected to "light the way" for the others to follow. On the other hand, if learning mainly concerned each member learning his own task, yet members had to coördinate highly, the dullards might hold back the progress of the heterogeneous group compared to the more equal performance from all members likely in the homogeneous group. On the other side of the coin, if we have to assemble small groups from a single pool of available talent, it may be advantageous to place some low-ability individuals in each group along with those of higher ability, rather than create highly homogeneous groups, for the following reason: the less adequate members may try harder if placed among more proficient persons (Chapman [*214*]). But empirical results have not been consistent in the matter. Among two levels of subnormal girls, working in pairs, those of lower intelligence were found by Abel (*2*) to profit most. Although Moede (*755*) reached similar conclusions with normal adolescent boys, this was not found to be true by Findlay, Matyas, and Rogge (*330*), who assembled combat basic training squads such that some were all low in intelligence, some contained equal proportions of men low and high in intelligence, and some were composed of men average in intelligence as well as men at either extreme. According to seven weekly proficiency tests, men of low intelligence did not profit from association with the brighter men.

On the other hand, when a high degree of coördination is required, "one rotten apple may spoil the barrel." McCurdy and Lambert (*690*) asked subjects to coördinate in punching levers to turn on lights of a group maze. The poorest member's performance interfered with others. The group performed less well than the average individual. We infer that groups of higher variance in ability would learn the McCurdy and Lambert maze less adequately than groups of the same mean but lower variance.

INITIAL POSITION AND HETEROGENEITY. If everyone shares the same opinion initially, then, as we have said earlier, the group is likely to get along well. But suppose this shared opinion is at a certain level of in-

accuracy. Then, despite its interaction effectiveness, the group is likely to be less effective in learning compared to a group at the same level of inaccuracy but in which members are more divergent initially. If the group is heterogeneous in opinion (all members are not so divergent that the group will break up) it will tend to move toward some common position through group interaction and the effects of reinforcement. (For example, Horwitz, Exline, *et al.* [*544*] noted that communication among subjects resulted in a reduction in their variance in degree of interest in a task.) This common position is likely to be more accurate or closer to solving problems of the group than the average initial opinions of the heterogeneous members. If we contrast two groups at the same initial mean accuracy of opinion, the group with the greater variance in opinion should reach a more accurate common opinion than the group with the lower variance. Jenness (*578*) had individuals, as individuals, estimate the number of beans in a bottle. Then they discussed the matter. He found a 60 percent reduction in error of these guesses in groups with a large diversity of initial estimates. Only a 17 percent reduction occurred where members were in close agreement initially. Further, if no discussion took place, but only a minimum of interaction, in which everyone was informed about everyone else's estimate, only a 4 percent reduction occurred.

HETEROGENEITY AND JURY DECISIONS. Another situation in which heterogeneity promotes efficiency is exemplified by the court of expert judge and untrained jury. Marston (*720*) found that a single trained judge could reach a more accurate legal decision after hearing testimony than a group of untrained individuals. Add to this Gerard's (*389*) results: heterogeneous groups tend to agree more with experts rather than their own members' collective opinions. Given homogeneous and heterogeneous juries at the same average of initial accuracy, we infer that heterogeneous juries will be more likely to attend to the expert judge's advice and reach a more accurate decision, while juries homogeneous in initial opinions will be less likely to do so. Torrance *et al.* (*1051*) came to a similar conclusion in their studies of air crews undergoing survival training. Initial task-oriented disagreement in survival groups yielding better final decisions and average individual performance. If groups disagreed initially they had an increased scale of judgment. They were more likely to decrease in misunderstanding and

increase in ability to adapt to emergencies, take calculated risks, and accept the group decision.

It may be that homogeneity in certain personality characteristics may be most conducive to effectiveness, while heterogeneity in others may promote task effectiveness. For example, accuracy of group judgment was associated positively in 80 groups studied by Cattell, Saunders, and Stice (*206*) with variance within groups in surgency, radicalism, character integration, and adventuresomeness. In these same groups, decision-making slowed up if members were heterogeneous in sensitivity, suspiciousness, and aggressivenes. A great deal more systematic exploration is needed in this particular area.

CABINET LEADERSHIP. When a leadership position becomes very complex and requires the attention, energy, and knowledge not likely to be found in one individual, committees or teams of leaders may emerge. The executive branch of governments of both the United States and the Soviet Union have been moving in this direction. Most of the parliamentary democracies adopted such an approach much earlier. We guess that an inherent conflict will exist in such committees or cabinets. Opinions, abilities, and interests must be sufficiently alike to promote harmonious interaction. At the very same time, the committee has been formed primarily to increase the diversity of talent and opinion available for decision-making. Thorndike (*1035*) summarizes this conflict: the committee is more likely to be effective if the members have a wider range of experience and abilities than any single member. More and varied suggestions are produced for the solution of problems. Yet, if the diversity of members is too great, the reconciliation of opposing means to ends also becomes exceedingly difficult.

OTHER INTERACTION POTENTIAL VARIABLES AFFECTING GROUP EFFECTIVENESS

MUTUAL ESTEEM, ATTRACTIVENESS, AND EFFECTIVENESS

The positive relation of mutual esteem to group effectiveness has already been discussed in detail in Chapter 15. Similarly, Chapter 4 examined the relation of attractiveness to effectiveness.

COÖRDINATION AND EFFECTIVENESS

More coördination means more interaction. More interaction produces more effectiveness. Generally, we should and do find groups more

effective where coordination is greater (Andrews [24]). Without coördination, Simon (*956*) points out, coöperation is impossible. Again, however, an extreme may be reached where the high degree of required coördination may become detrimental. The "weak link in the chain" problem occurs here. If everyone becomes completely dependent on everyone else, one "weak link" will seriously disturb, if not destroy, the group performance. Cited earlier were McCurdy and Lambert's (*690*) results demonstrating that one poor member could pull down the performance of an entire group in learning a group-operated lever-light maze.

Titus (*1043*) adds another seemingly obvious qualification. The more complex the task faced by the group, the more will coördination yield effective group performance.

SOME EMPIRICAL RESULTS. Lichtenberg (*668*) reported that if he increased the time needed to initiate coöperative effort, the probability of successful coöperation was decreased. Similarly, Torrance (*1046*) found crews were more effective under simulated survival conditions if earlier in test situations they had demonstrated more coördination. Husband (*556*) noted that groups were relatively faster than individuals on puzzles where division of labor and coördinated effort could be accomplished, but not on arithmetic problems where little division of labor was possible.

EFFECTS OF MATURITY, INTELLIGENCE, THIRD PARTIES, AND PRIMACY ON EFFECTIVENESS

It is obvious that more mature and more intelligent members are generally more likely to form effective groups, as are normal individuals compared to severe neurotics or psychotics. However, greater interaction potential is merely one among many reasons for greater effectiveness.

Suggestive of the importance of third parties to group effectiveness as well as interaction potential is the conclusion of Festinger and Hutte (*322*) based on a study replicated in Minneapolis and in Leyden, Holland: "If persons in a group feel that those members of the group whom they like best dislike each other, this tends to make them uncertain and unstable about their interpersonal relations in the group" (p. 522).

The possible consequences of the primacy of interaction on effectiveness are pointed out by Robson and Chapin (*871*), who obtained different effects from subjecting groups to success followed by failure in

contrast to other groups subjected to failure followed by success. Highly motivated groups suffer more in production losses when success is followed suddenly by failure. The effects of primacy were also revealed in a study by Feierabend and Janis (*309*) who found that the introduction of negative arguments is less likely to reduce the persuasiveness of positive arguments if introduced after rather than before. The negative arguments are more effective if they occur first. The particular importance of a worker's first day on the job leads most commentators, such as Halsey (*470*), to emphasize the need for supervisors to provide a friendly, skillful, adequate introduction of the new employee to his job.

CHAPTER 19

OVERCOMING INEFFECTIVENESS DUE TO LACK OF INTERACTION POTENTIAL

An Egyptian priest, Appianus, was sentenced to death by Commodus after a trial at the imperial court. Following the pronouncement of sentence, Appianus objected in scandalous defiance. "Do you realize whom you are addressing?" asked Commodus.

"Certainly; a tyrant."

"Not so," Commodus replied, "you are speaking to the emperor."

"Certainly not," was the retort. "Your father, the divine Marcus Aurelius Antoninus, had every right to call himself emperor, because he cultivated wisdom, despised money, and loved what was good. But you have no such right, for you are the antithesis of your father: you love tyranny, vice and brutality."

—Oxyrhynchus Papyrus (A.D. *Third Century*)

We have shown that when interaction potential is low between members, their effectiveness in coöperating to attain their respective goals is likely to be low. A variety of techniques and modifications have been introduced into group activities in order to increase effectiveness in spite of initially low interaction potential.

Some raise effectiveness by raising interaction potential directly. Others raise interaction potential indirectly or attack effectiveness

rather than interaction potential as such. The processes or techniques include:

1. Establishing formal organization and increasing the differentiation of members in status.
2. Increasing the training of assigned leaders.
3. Increasing the educational level or degree of understanding of the members of the group activities.
4. Establishing and reinforcing reliable common sources of information for all members.
5. Increasing the rapidity and frequency of transmittal of information.
6. Splintering the group.

A number of other approaches can also be considered.

The anecdote above illustrates one of the solutions to ineffectiveness due to lack of interaction potential—the differentiation of members in status. It also illustrates the new difficulties which such differentiation can bring to a group—the abuse of power.

STATUS DIFFERENTIATION, FORMAL ORGANIZATION, AND LACK OF INTERACTION POTENTIAL

Even when individuals gather together voluntarily to gain their respective goals through coöperative action, if interaction potential is low because of the large membership or other factors, the members may vest control in a few executive positions because of the unwieldiness or ineffectiveness of mass action, as such. It is usually the more active members who are placed in these decision-making positions. Full time office-holders may be necessary to meet the group's needs. A career in office provides the executive with additional knowledge, control of channels of communication, as well as the decision-making authority. Status differentiation finally may reach a high degree in what began as a voluntary collection of individuals of equal status (Barber [*52*]). Sociologists such as Weber (*1093*) and Merton (*740*) focused considerable attention on the dimension.

MEASURING STATUS DIFFERENTIATION

Qualitative stratification into echelons, ranks, castes, and classes of positions was recognized by the earliest observers of group behavior. But status differentiation as a quantity is a more recent development. If we assign a value to each of several positions by means of job evaluation

(see Chapter 14), the statistical variance or standard deviation of these values provides a measure of the amount status differs in the group. When all positions are equal, variance is zero.

Variance increases with increasing status differentiation. But the variance statistic alone may not be enough to describe fully a particular status hierarchy. The variance may not be particularly sensitive to contrasting the totalitarian, oligarchical, and bureaucratic hierarchies. Yet the differences in hierarchical forms are significant for understanding behavior that takes place. In the totalitarian form, humble origins are no bar to a fast rise in status. One can move rapidly from the lowest to the highest echelon. This is less possible in a bureaucracy, although greater opportunities exist in the bureaucracy for small, upward shifts (Degré [*265*]).

The status of the average position in the organization must be determined to obtain an adequate description of the status hierarchy. The totalitarian organization, featuring one or very few extremely high-status positions and a plenitude of uniformly low-status positions, would exhibit a relatively small variance in status and a low mean status. The oligarchy containing more high-status positions but the same uniform pool of low-status ones also would show some increase in mean status of positions. However, the variance would still be fairly low because of the uniformly low status of a large proportion of all the positions. The bureaucracy of many echelons of positions with fewer and fewer positions at higher-status echelons would show a further increase in mean status as well as a larger variance in status.

A simpler solution to the problem of measurement has been provided by Hohn (*526*) who developed a hierarchy index ranging from 0, where all positions or members were equal, to 1, where all members were in a perfect hierarchical order.

OTHER APPROACHES. Still other approaches to quantifying descriptions of stratification have been attempted. A factor analysis by Cattell and Stice (*207*) of 100 laboratory groups revealed group dimensions persisting through three sessions. One was a dimension of stratification—the extent members varied in status, or esteem, or power, or duties. Hemphill and Westie (*505*) developed a check list to describe differences in stratification. Stratification was the degree "a group orders its members into status hierarchies. It is reflected by differential distribution of power, privileges, obligations and duties and by asymmetrical

patterns of differential behavior among members." A subsequent factorial study of air crews by Rush (*895*) revealed a stratification dimension correlated with the following descriptive items:

The opinions of crew members are not considered equal.

The officer crew members hold a higher status in the crew than do other members.

The crew is controlled by the action of a few members.

Rush's analysis suggested that the existence of a high degree of stratification in an air crew did not necessarily bring complete clarity of positions, as might be expected. Procedural clarity was independent of stratification. Nor was the amount of coercion as evidenced by forced transfer, strict discipline, and inhibition of participation, related directly to amount of stratification. Rush's finding may have been due to the rather homogeneous sample of groups he studied in contrast to the wider sampling of groups by Hemphill and Westie.

STATUS DIFFERENTIATION AND ORGANIZATION

Different members of the group are assigned different positions to increase predictability of their performance by others and reduce the complexity of operations. Or different positions may be usurped in the desire for control and power by some members over the others (Cartwright and Zander [*201*]), for increased differentiation in status accompanies the organization of positions. As pointed out in Chapter 5, it is difficult to see how a variety of positions could be set up or develop naturally without some of these positions being regarded as more valuable than others in contributing to the welfare of the other group members. Although the differentiation of position without the differentiation of status is conceptually possible, it may be ruled out as an empirical oddity. For this reason we will discuss together the effects of differentiation of position and the increase in variance of status. But. since status differentiation is increased arbitrarily or naturally with organizational differentiation, it adds to the effects of organization in mitigating the two sources of ineffectiveness associated with low interaction potential: unpredictability and complexity.

SPECIFIC MEANS. Based on observation, commentary, and industrial experience, Reilley (*851*) offered a number of specific suggestions for organizing maximum predictability and reliability of relationships between positions as well as keeping complexity to a minimum:

1. Someone should be responsible for supervising all essential activities.
2. Responsibility for specific acts should not be duplicated or overlapping.
3. No one position should have too numerous or complex duties.
4. Duties should be meaningfully clustered so that position-holders do not have responsibility for a wide assortment of unrelated acts.
5. Responsibilities should be written, clear, and understood by job occupants.
6. Authority to make decisions should be commensurate with responsibility for those decisions.
7. Authority should be delegated so that decisions take place as close as possible to the point of action.
8. At the highest echelons, superiors should have no more than 5 to 7 subordinates reporting to them, although up to 20 or more can be supervised at lower echelons, according to industrial experience.
9. Every occupant of a position should know to whom to report and who reports to him. The "chain of command" should be recognized and followed.
10. Within the preceding context, it is desirable to have as few echelons as possible.

Many of these suggestions are untested hypotheses. Although widely accepted, they often need qualification. For example, the increased interest and satisfaction provided the occupant of a position requiring attention to a variety of unrelated tasks may outweigh the seeming advantage of his performing only related tasks. With reference to chain of command, McGregor (*694*) noted, an organization's effectiveness is more likely to increase if job occupants have a right to appeal over the heads of their superiors.

COUNTERACTING THE EFFECTS OF UNPREDICTABILITY THROUGH ORGANIZING AND STATUS DIFFERENTIATION

In creating different positions, independent of the position-holders, we promote stability within the group which is maintained despite changes in and of position-holders. We can predict what the bank teller will do merely by knowing that he is one and is located behind a bank window which is open. In creating different positions within a group, we not only specify to some extent what isolated activity will be carried out by the position-holder, but also we make public the inter-

actions with other positions that will be performed or prohibited. In a highly complex group, these rules of interaction counteract the effects of unpredictability inherent in the low interaction potential of complex groups.

Interaction effectiveness is increased by increasing each position-holder's ability to predict the effects of his behavior on another. The interaction laws are arbitrary, yet originally were aimed at promoting group effectiveness. They are sanctioned or legitimized or agreed upon or followed because they are regarded as natural laws (laws valid because of man's nature or laws valid because they are derived from God), laws of an arbitrary sovereign, or laws which summarize modal behavior. While these laws increase predictability and interaction effectiveness, they fix and restrict behaviors, reducing the likelihood of, or making more difficult, change in behavior to promote task effectiveness required as new conditions arise.

When faced with a high degree of interaction complexity, such complexity is reduced by introducing laws. If every one of 50 members could interact, $\frac{50 \times 49}{2}$ pairings would be possible. Arbitrary rules can restrict this. Each member may be permitted to interact with only 5 others, instead of 50 others. Rules may also forecast what effects to expect, promoting interaction effectiveness. Yet, like status variance, the ultimate effect may be a bureaucratic rigidity which will be totally incapable of handling a new task when it comes along.

Organization thus promotes effectiveness by increasing predictability where such predictability is absent because of low interaction potential. Contrast two groups of 100 men, both likely to be low in interaction potential because of their large size. One remains unorganized; in the other, rules of behavior are established by some means or other. Some pertain to all members; others concern only members of various established positions. The unorganized group is merely a mob. One can hardly predict what his closest neighbor will do, let alone what some individuals further away in the mob are likely to do.

Bureaucracies are created to provide predictability, reliability, and fixed relations between positions. Assuming that positions and rules are understood by all members, everyone knows where he stands. The system of rewards and punishments is also public knowledge (Dubin [283,

284]). But clarity of positions and rules is essential. Dyer and Lambert (*292*) noted that the efficiency of bomber wings strongly depended on making status differentiation maximally clear.

COUNTERACTING THE EFFECTS OF COMPLEXITY THROUGH ORGANIZATION AND STATUS DIFFERENTIATION

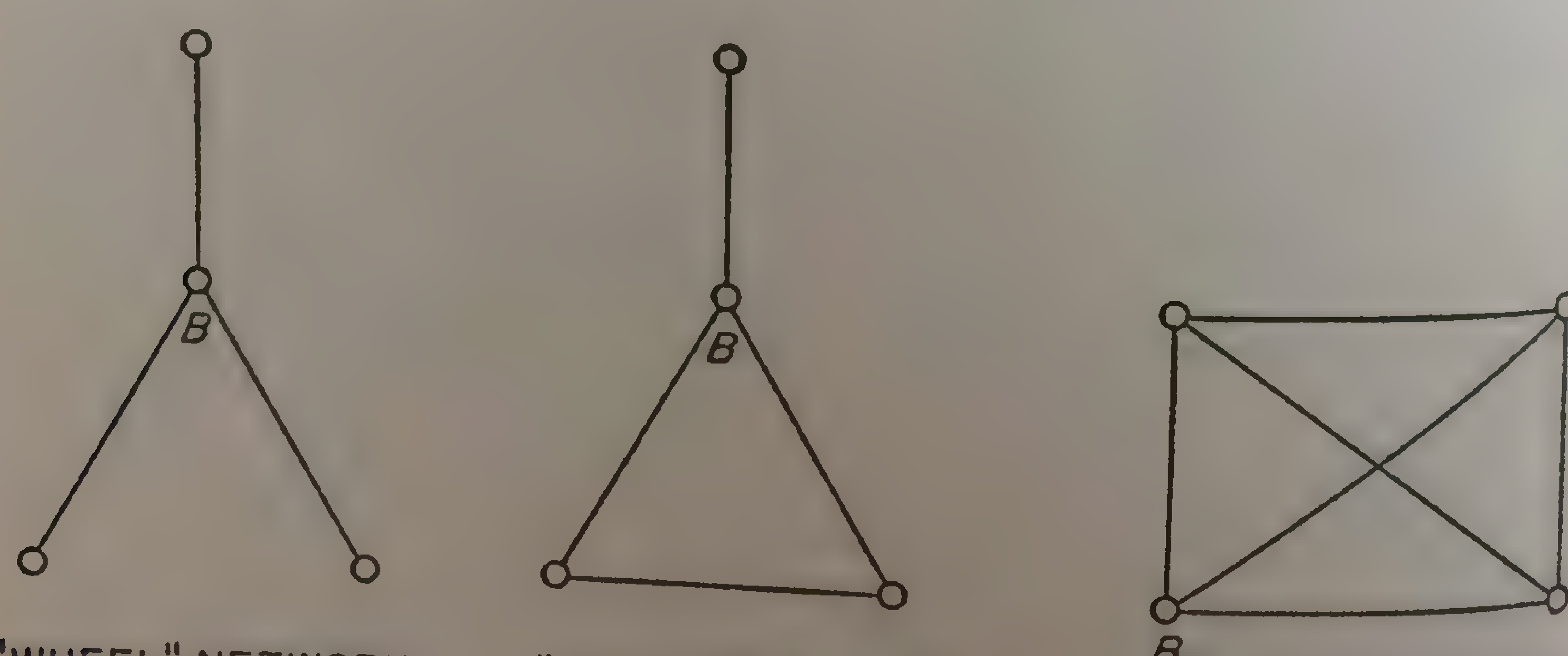
Contrast the interaction in a simple, small, intimate, communicative group with a complex, large, distant, and uncommunicative one. Assume that both groups are at the same level of ineffectiveness. What does it take to increase the eflectiveness of each to the same degree and with the same rapidity?

In the small, intimate, communicative group, many more attempted leadership acts can occur with a given amount of time and effort than in the large, distant group. (For example, Gibb [*398*] found a greater amount of leadership appearing in those initially leaderless groups in which members felt freer to express themselves—where communication was easier.) Conversely, it is much more important that each attempted leadership act be successful and effective, in order for the large, distant group to reach the same degree of effectiveness as the small, intimate, communicative one, in the same amount of time and with the same expenditure of energy. Each leadership attempt must "count more" in the large group, since relatively fewer are possible. If the leadership acts tend to be aborted in the large group to the same extent as in the small group, then the large group will change less—be less likely to become effective—than the small group. If motivation is the same in both groups, then it must follow that if both groups are to change in effectiveness to the same extent, each leadership attempt in the low-interaction potential, large, distant, uncommunicative group must have a greater likelihood of succeeding—and hence of being effective.

LEADERSHIP EFFICIENCY AND STATUS DIFFERENTIATION. The proportion of successful leadership acts can be increased by creating greater differentiation in status among members. This has the effect of assigning to a few members a large amount of positional control and power and therefore gives them the ability to succeed more quickly by coercive means when they attempt to influence lower-status members. Thus, in a survey study of observers' descriptions of 100 groups, Hemphill, Seigel, and Westie (*504*) showed that increasing status differentiation results in just such an increase in the tendency of the leadership in the

group to be dominating or coercive, defining and structuring the work for the membership. A similar study of 212 air crews by Rush (*895*) found air crew commanders much less considerate of their subordinates when the crews were highly stratified.

Also, considerable evidence substantiates the proposition that increased efficiency of group performance may accrue from the coercion arising from status differentiation, for as Cattell (*205*) hypothesized, goals can be attained faster when status is differentiated. Thus, McCurdy and Eber (*691*) found that "authoritarian" organizations of laboratory groups reached faster solutions to problems than "democratic" organizations. Again, Bavelas (*100*) demonstrated in a communication network study that when patterns of communication were highly centralized, organization developed quickly and performance errors were lower. The clearest experimental illustration of the efficiency of the use of coerciveness under conditions of low interaction potential appeared in Shaw's (*941*) comparison of coercive and persuasive leadership in three different communication networks: "wheel," "kite," and "comcon."



"WHEEL" NETWORK "KITE" NETWORK "COMCON" NETWORK

Interaction between any pair of members (interaction potential) should have been highest in the completely connected all-channel "comcon," and lowest in the most disconnected network—"the wheel." The number of messages transmitted was therefore highest in the "comcon," as was job satisfaction; and both volume of messages and satisfaction were lowest in the wheel. One of two types of leaders was assigned to the most independent position (*B*) of each type of network.

The "authoritarian" or coercive leader was instructed to give orders (not suggestions) to the other subjects, never to accept suggestions uncritically, and in general to make it clear he was the boss. The nonauthoritarian persuasive leader was instructed to offer suggestions if he thought they were good ones, and in general to behave in a coöperative manner.

From what we have said earlier, the "wheel" network with the lowest interaction potential should profit the most from coercive rather than persuasive leadership, while the "comcon," with the highest interaction potential, should profit the least. Table 9 shows the difference in errors found by Shaw for each network when the errors under coercive leadership were compared with the errors accumulated in the same network under persuasive leadership.

TABLE 9. Means of Errors for Three Communication Networks Under Two Types of Leadership

	"Wheel"	"Kite"	Comcon"
	Errors of Information		
Nonauthoritarian (persuasive)	13.0	12.1	7.6
Authoritarian (coercive)	3.9	4.4	4.0
Difference (relatively greater accuracy under coercion)	9.1	7.7	3.6
	Errors of Decision		
Nonauthoritarian (persuasive)	3.8	3.1	1.8
Authoritarian (coercive)	1.3	2.4	1.9
Difference (relatively greater accuracy under coercion)	2.5	0.7	–0.1

Adapted from M. E. Shaw. A comparison of two types of leadership in various communication nets. *J. abnorm. soc. Psychol.*, 1955, *50*, p. 131.

Both for information and for decision errors, with decreasing interaction potential, there was an increase in the relative superiority of accuracy under coercive rather than persuasive leadership.

STATUS DIFFERENTIATION AND ABILITY FROM POSITION. The occupants of positions of different status in an organization often receive more specialized skills, knowledge, and training because of the position they occupy. This makes them also more likely to succeed in persuading

others when they attempt leadership or to be more successful as permissive leaders. While status differentiation increases the success of attempts to be coercive or permissive, it also may increase the success of attempts to persuade. Less total leadership of any kind will be required to reach agreement and effectiveness than if members were all equal in status. Thus Bovard (*155*) observed that in groups of low status differentiation, verbal interaction is higher (i.e., more leadership is attempted) than when a person of higher status directs activities. More persistence in the face of rejection is likely to be required of the would-be leader of the group where all members are equal in status.

WHY STATUS RATHER THAN ESTEEM DIFFERENTIATION? We differentiate status in order to create variance in control and power. But control and power also increase by differentiation in esteem (value as a person regardless of position) through natural means. Why differentiate status? Often we must assemble a group of strangers. We cannot afford to lose the time necessary for esteem differentiation to take place. More important, status is more visible, distinct, and easily defined than esteem. It is easier to associate symbols with status rather than esteem (see Chapter 14).

An esteem hierarchy develops naturally in time in any group. If the status hierarchy becomes ineffective, if communications via the formal organization are inadequate, if incapable members are given the high-status positions, the esteem hierarchy may take on the functions of the status hierarchy to bolster it or combat it, depending on the extent status and esteem are correlated in the group. This will be particularly true where upward communication is suppressed in the formal organization (Shartle [*933*]).

INCREASING EFFECTIVENESS BY ORGANIZING AND DIFFERENTIATING STATUS

Substantial opinion and empirical evidence attest to the efficacy of organization and status variance to promote effectiveness where interaction potential among members is low. Fox, Lorge, *et al.* (*358*) compared the effectiveness of 6- to 8-man discussions of Air Force officers with groups of 12 to 13. The task involved solving plans of action for handling human relations problems. Contrary to the usual expectations, the larger groups yielded significantly higher quality decisions. The investigators believe that the large group overcame its disadvantage by

organizing itself to solve the problem to make maximum use of the larger number of participants.

A sociological analysis of the performance of four medium bomber wings by Bates (*97*) suggested that better performance, especially in maintenance, was associated with greater use of authority, a greater frequency of production plans, orders, and instructions sanctioned by authority. Separate studies of the productivity or success of basketball teams, surveying parties, open-hearth shops, and sales coöperatives (all containing elements inhibiting interaction) found consistently that groups were more effective if their leaders saw greater differences between their most and least preferred workers. On the basis of these results Fiedler (*327*) hypothesized that work groups are more likely to be effective if the leaders see themselves as more distant from their subordinates. Presumably, if the leader perceives more status differentiation, such groups should prove more productive.

If low interaction potential is due to heterogeneity of member ability, increasing status variance becomes essential for group interaction effectiveness. According to Barnard (*57*), "Much experience demonstrates that those who are unequal cannot work well for long as equals. But experience also demonstrates that where differences in status are recognized formally, men of very unequal abilities and importance can and do work well together for long periods" (p. 263).

Barnard assumes, of course, that the most capable members will be assigned the highest-status positions.

Where interaction potential is high, equality of status is likely to be retained. Thus, Caplow and Forman (*192*) noted that when neighborhoods contain families homogeneous in length of residence, interests, and type of dwelling, no status variation arises. Earlier, Form (*354*) reported similar findings for Greenbelt, Maryland, a newly established community of federal white-collar employees of similar occupations, age, nativity, and housing. Again, Munch (*771*) observed that the homogeneous inhabitants of isolated Tristan da Cunha in the South Atlantic can maintain their community on the basis of an esteem hierarchy alone. No status differentiation is necessary. There is no institutionalized government, yet there is no disorder. The major control is "what will people think?" and the most drastic penalty for social misdeeds is public teasing. And in industry, Pfiffner (*820*) remarks that informal groups can maintain themselves well if all members are homo-

geneous, if they do the same work, and if they have been with the company for the same length of time.

RECOGNITION OF EFFICACY OF STATUS DIFFERENTIATION. Members of groups of low interaction potential seem to recognize the need to vest control in the hands of a few. According to a survey made by Hemphill (*493*), in large groups, leaders are more often expected to make the decisions for the group without consulting the members. That is, members of large groups are more likely to accept without question the leadership attempts, or the decisions of the leadership, while in small groups, there will be a greater tendency to reject or cause the abortion of such arbitrary behavior by those in positions of leadership. Moreover, as the group enlarges, more demands are placed on the leader and he must rely more on his position rather than his person to handle issues as they arise. Dubin (*283*) agrees that the members of large formal organizations are more likely to accept coercive leadership. An example from Roman imperial government is provided by Starr (*981*).

> However autocratic an emperor might be, he was living on top of a maelstrom of hidden tensions and conflicts reaching out from his own family through the aristocracy of Rome, to the territorial, social, and cultural cleavages in the provinces . . . [By Hadrian's time the] emperors had at last managed to consolidate the world into a reasonably tidy scheme, grouped in concentric circles about the rulers . . . the price which had to be paid for the success of these rulers . . . was the loss of local autonomy by the cities, which were the fountainhead of civilization, and in the decay of initiative of the aristocracy.
>
> *To a surprising degree this price was voluntarily paid.* . . . Augustus had concentrated upon himself the yearnings of his contemporaries . . . for a deliverer, a savior, and a benefactor. To this man, . . . men everywhere had tended to turn for assurance of peace and prosperity . . . , for a sense of security and purpose . . . Quite apart from any imperial effort to influence men's minds, the subjects persistently thrust up the rulers on a high pinnacle and revered from afar the giver of earthy blessings. The flattery, even worship, of the ruler ever grew as a threat to independent thought and action by the subjects.
>
> Men yielded their own minds. In return they received, or hoped to receive, a symbol on which they might rely for mental security and material prosperity—in a word, stability.
>
> . . . The reign of Tiberius makes crystal clear what was already suggested in the Augustan period: a substantial part of the Senate was not interested

in maintaining the independence of the body but preferred to concentrate powers on the princeps. Repeatedly, the Senate refused to take the initiative or even make decisions despite the warning of Tiberius that "every increase in prerogative was a weakening of the law" (*123*, pp. 34–35). (Italics are the author's.)

In describing his experiences with a neonate group, Bion (*129*) noted that members immediately raised a demand for leadership, differentiation in status, and stabilization as they perceived themselves initially to be ineffective, unable to communicate easily, and unwilling to carry on a discussion of group goals.

Observations of large and small groups in action also generally support this view. As the class of students becomes larger (and if no subdivisions are created), the teacher must more and more become a lecturer, handing down information, opinions and decisions, whereas in the small class, there is more opportunity for discussion of attempted leadership by the teacher, and more selection for acceptance from among those attempted. Moreover, there is more opportunity in the small class for the students to attempt various kinds of leadership acts.

OPTIMUM DIFFERENTIATION. Sometimes status may be diversified too much for the needs of the organization. Bates (*97*) noted that the addition of supervisory groups in the maintenance of bomber wings appeared to add a level of organization unnecessary to efficient coördination. On the other hand, Guion (*446*) reported that the use of an assistant foreman permitted the average industrial foreman to supervise groups enlarged by about 25 workers.

CIVILIZATION AND ORGANIZATION

The growth of civilization can be described fairly well in terms of increasing organization—establishing different positions or different sets of tasks required to attain group goals and establishing rules for behavior of position-holders and those interacting with position-holders.

Mumford (*770*) recognized four levels of increasing civilization. In most primitive groups of hunters, authority depends on individual ability to hunt successfully. In the prematriarchal societies of the Veddahs, Bushmen, Fuegians, and Tasmanians, small groups are the rule. No division of labor is apparent except between the sexes. There is a headman but his authority is limited and temporary and is still mainly a matter of personal ability to hunt. Again, because of meager re-

sources and nomadism there is relatively little permanency in groups or relations.

Given a better food supply and a more stationary existence, as is the case among the Andamanese, a division of labor occurs. Heredity becomes important in determining position, but ability is still of consequence. The headman has limited authority, mainly as an inhibitor of disputes.

Finally, a full-blown civilization such as that of the Incas may arise. In addition to a rather complete organization of activities, characteristic here is belief in a diety which has started the society; a great Founder-Teacher. Heredity predominates in the determination of position. Status differentiation is maximized.

In the same way, Hobhouse, Wheeler, and Ginsberg (*521*) were able to classify 395 primitive societies according to their level of economic development from the simplest hunting groups to the complex agriculture-based societies. The simpler the development, the smaller and more independent could be the basic communities. In these families or clans, the chief had little power. Power depended on his esteem. At the other end of the scale, in such centralized social organizations as the Mesopotamian or Egyptian, power was concentrated in a ruling circle or individual by virtue of their or his positions.

The larger, more geographically widespread, and nonintimate a society, the more positional power was vested in a ruler or rulers. Without modern communications, the lower the interaction potential within a society, the greater was the need for variance in status in order to maintain effectiveness within the society. With the division of labor required in the larger agricultural society, some jobs were of more value as contributing to the total society than other jobs. In Egypt, the priest who learned to predict flooding of the Nile had a more valuable set of tasks to perform than the typical fellahin.

NEGATIVE ASPECTS OF ORGANIZATION AND STATUS DIFFERENTIATION

Unfortunately, many new processes arise with status differentiation to reduce group effectiveness as well as the possibility of further organizational change. Such phenomena as coöptation; long tenure for leaders; increased self-oriented motivation in the leaders; the development of rules, regulations, and customs specifically restricting further change, all

serve to reduce rather than raise efficiency. The creative initiator, aiming to promote greater effectiveness, usually has much less chance of success in an older company, country, or institution where prescribed forms of interaction are already established. He is likely to find himself in continuous conflict (Schultze [*916*]). Once an order is established, often no further changes are permitted even though further change is desirable for the group's effectiveness. As Sebastian Castellio wisely noted in refuting Calvin's defense of his legal murder of Michael Servetus, the John Calvin of 1556 would have burned at the stake the John Calvin of 1536 for being a dangerous innovator. In 1556, Calvin destroyed religious innovators—yet he himself had introduced more new religious innovations than the Catholic Church had during the preceding millennium.

INCIPIENT REVOLT. Gibb (*399*) has made the suggestion that the coerciveness of greater status differentiation will produce more defensive behavior. And Cattell (*205*) hypothesized that with more status differentiation, group goal selection will be poorer. Fewer members will share strong motivation to attain those selected. Agreeing with Cattell, Maccoby (*687*) argued that a group is less likely to be effective when the members perform to satisfy the needs and attain the goals of a member of high status who has control over them. Thus, while executives say they call conferences of their subordinates to reach better decisions, the executives actually convene the group to ensure that the low-status subordinates understand what the executive has decided, to pool responsibility, to confirm the executive's authority, and to motivate subordinates to carry out the decision (Kriesberg [*629*]; Kriesberg and Guetzkow [*630*]).

Durkheim (*289*) hypothesized that differences in status and the differential rewards associated with status differentiation may be accepted by those of low status only under strong coercion. Incipient revolt is likely in such circumstances. The combined results of experiments by Thibaut and Coules (*1027*) and Bovard (*157*) lend support to Durkheim's hypothesis. Thibaut and Coules demonstrated that the communication of hostility toward an instigator will reduce the residual hostility toward him. When all members are equal in status, more communication of feelings will occur (Bovard [*157*]). But, in groups with members varying in status, the low-status members are less likely to have the opportunity and are more likely to be inhibited from communicat-

ing hostility upward. Pseudosolutions usually detrimental to effectiveness, such as scapegoating or apathy, are likely to occur where status differentiation results in a great deal of residual hostility.

INHIBITION OF TRAINING. While many commentators argue in favor of training together all members of groups where members are stratified, the effects of status differentiation are likely to inhibit the training of those of low status. Most of the interaction will be monopolized by the higher-status members, according to an experiment by Bass and Wurster (*92*). Presumably, without participation, the low-status members will learn less. Likewise, a survey of 490 industrial supervisors found a substantial majority favoring conference training without their immediate boss being present (Mold [*757*]).

ORGANIZATIONAL RIGIDITY. Davis (*260*) accused Navy officers of resorting to occupational ritualism and professional insulation. Middle echelons tended to avoid responsibility because their positions were clearly but narrowly circumscribed. They would be held strictly accountable for any attempted leadership acts exceeding the authority of their position. It was necessary to be careful, for most authority is invested in higher echelons. Moreover, as in many other bureaucracies, rewards for effective actions are small, while the penalties for ineffective behavior are very great. The merit system tends to weight highly a few mistakes. Doing nothing and staying out of trouble will lead to being given the standard merit rating—a favorable one. In such an environment, one succeeds in the organization by avoiding becoming a threat to anyone else in the organization, and by avoiding being branded as a "radical" or as an "innovator" or as "aggressive." For bureaucracy demands reliability, predictability, and devotion to regulations. Discipline becomes an end rather than a means to an end. Adaptation to new conditions not foreseen by the rule-makers becomes impossible (Merton [*740*]). But, paradoxically, the restrictiveness, the ritualism, the delay in innovation, are all phenomena which in a certain sense maintain an effective interaction within the organization. The Navy is organized for rapid action in an emergency. In this emergency, a single authority must be obeyed by all the lower echelons. Innovations may bring chaos, because of increased unpredictability, etc.

Yet, when the group's goals and tasks change, the organizational rigidity becomes a handicap. The organization becomes an end in itself. The original purposes of the group may be lost. Its aims may be-

come secondary to maintaining internal harmony and perpetuation of the organization (Ewer [*302*]). On several occasions when reviewing the operations of an industrial concern or a governmental agency, the writer has asked a clerk or administrator, "Why do you fill out Form *A*?" Sometimes, the response is, "I don't know." More often, "I fill out Form *A* because the *XYZ* unit wants the information." Then it is amusing to find out that the *XYZ* unit does not know why they receive Form *A* and does not know what to do with Form *A* after it has been filed in their office. Some rule-maker in the past may have thought or actually found that the *XYZ* unit needed Form *A*, but the condition no longer exists.

BUREAUCRATIC MOTIVATION. Carrying out the duties of one's position, regardless of the ineffectiveness of the activity due to changed conditions, becomes satisfying to the individual member (Merton [*740*]). Bureaucrats gain security by sticking to the rules faithfully—sometimes too faithfully for the good of the organization. The formula is, "If I obey the rules to the letter, I can do no wrong in the eyes of the organization. If I do no wrong, I am safe."

"Do-nothingism" is endemic in a company where it is axiomatic that "you can make only one mistake in this company." Promotion comes to those who see no problems, hear no problems, and think about no problems.

Further, the bureaucrat may not at all have the opportunity to see the ineffectiveness of his leadership acts, since his goals are to carry out the functions of his position as given him. He sees only success in his acts (which are obeyed by his subordinates unquestioningly because of his power over them). His acts are reinforced and despite their task ineffectiveness are likely to reoccur with increased vigor. Pride in these almost ritualistic modes of behavior develops (Merton [*740*]).

The new rapidly expanding and changing industrial corporation concentrates on task effectiveness. In the new organization, members are esteemed for their contributions to the company's progress. But in time, as the corporation ages and a satisfactory level of task effectiveness is reached, attention may become focused on interaction effectiveness. A member is now esteemed for his "ability to get along with others," his tendency to avoid "rocking the boat," his pleasantness and sociability, and his tendency to obey the rules and avoid having too much notice brought on himself. If the shift from interest in task to

interest in interaction is carried to an extreme the organization may suffer greatly in task effectiveness.

LOSS OF CONTACT. Another source of ineffectiveness in expanding organizations is that the leaders lose confidential contact with the lower echelons. Unless special communication techniques are introduced, the top and bottom echelons move further and further away from each other in choice of goals and means to those goals (Meerlo [*736*]).

Enlarging voluntary organizations are especially prone to develop this condition. An active minority develops control of the organization and the majority becomes apathetic. Such organizations are likely to cater to relatively minor interests (Barber [*52*]). Of course, since motivation to obtain the organization goals is low among the passive majority, the active minority may have control but little power. The leader receives less and less feedback of the effectiveness or ineffectiveness of his successful leadership acts. Yet his acts become increasingly successful because of his ever increasing status. Moreover, the leader's sincerity and motives can be concealed more and more. Machiavellian principles are more likely to work when the leader is several echelons removed from his followers. Evaluation is blocked despite the growing disagreement in values and goals (Pigors [*826*]).

SECURITY AND STATUS. As noted earlier in Chapter 14, the intense concern of the bureaucrat with the security of his position may be dictated by his dependency for power and reward on his position rather than on his personal ability, knowledge, and esteem. For example, we find long job tenure characteristic in most unions. Usually, union positions give much higher status to union officials than the jobs for which the union officials were originally trained. Once he becomes a union president, it is difficult for a hod carrier to give up the presidency and return to bricklaying. When union position does not necessarily add status, such as in a union of professional actors, job tenure tends to be of shorter duration, for the union official can return to his old job without losing any status (Selznick [*928*]). The methods used to maintain position also add to the task ineffectiveness of the organization. Former leaders may be liquidated by being cast into obscurity, exiled, executed, or voted out of the group. The admission of talented applicants—potential new leaders—may be barred. The power of the followers may gradually be reduced by the nullification of election machinery. An appointed bureaucracy, all dependent on the top authority figure, may be

created to maintain the top figure in office. Instead of maintaining a "loyal opposition" as a check, the legal protection of the opposition may be destroyed. To oppose the top authority is made tantamount to being disloyal to the organization (Titus [*1043*]).

In a "democratic" organization, the leader can maintain long tenure of office by controlling the channels of communication, such as the official journals and newspapers of the organization. Unfavorable publicity is censored, opposing views are suppressed. Moreover, he can prevent the opposition from learning how to become successful and effective (Michels [*745*]).

PERIODIC AUDIT OF POSITIONS. One solution to the problem of organizational rigidity is periodic systematic inspection and review of its positions, goals, systems of communication, etc. Built into the organization must be the procedures for its own effective modification. Built in also must be some way of tolerating a certain amount of deviation from circumscribed position and regulation in order to maintain group effectiveness. In order to maintain predictability of behavior and overcome the added complexity involved in tolerating some amount of variation from prescription, highly effective communications involving feedback of deviation must be maintained.

REVOLUTION. Another solution may be revolution. If the organization is highly rigid, and if the members are highly dissatisfied because of the ineffectiveness of the system, they may release their frustration by direct aggression against the organization. A member who suggests the destruction of the organization may find ready acceptance from the other members. A creative reformer may fail because his suggestions are rejected by those in control of the organization and because he fails to provide the emotional outlet for the frustrated followers which the destructive leader can give (Frank [*360*]).

INFORMAL ORGANIZATION. Still another more common solution is the creation of an informal organization. A pattern of behavior is ascribed to each member, rather than to his position. Here, control and power are based on esteem rather than status.

If the informal organization does not deviate too much from the formal, power to support attempted leadership based on "person" will add to the power to support attempted leadership based on "position." The informal organization will reinforce the effects of the formal. On the other hand, if the informal leaders are different from the formal

leaders and if their aims are in conflict, then the informal organization is likely to further reduce the task effectiveness of the group.

INCREASING LEADER AND MEMBER SKILLS

CROSS-TRAINING OF MEMBERS

Low interaction potential reduces opportunity for understanding and predicting what other "links in the chain" will do. It seems obvious that increasing knowledge of other members' duties can mitigate this lack of understanding. For example, free public mass education has increased immensely the interaction as well as task effectiveness of political states —both democratic and totalitarian. Reporting on air crew composition research, Hemphill (*495*) indicated that crews characterized by a high degree of shared knowledge (knowledge of each other's duties measured by proficiency tests) were more likely to be effective and well coordinated. Again, Gekoski (*388*) found a correlation of .24 between departmental productivity in an insurance company and the extent to which members were cross-trained.

DEVELOPING NEEDED LEADER SKILLS

If interaction potential is low, especially if it is low because of the heterogeneity of members in opinion and goals, to be successful a would-be leader must be flexible. The less homogeneous the membership, the less shared their goals, the greater will be the proportion of aborted leader behavior. It will be more difficult for the leader to make decisions about what acts to use. It will be more difficult for the leader to learn how to change the members' behavior. To lead will require the personality attributes of tolerating uncertainty and of flexibility in reasoning. Thus, Blocksma (*137*) emphasized that the leader of guidance groups must be flexible when placed in varying situations and when dealing with different individuals.

Consider the success of Franklin D. Roosevelt in holding together the coalition of conservative Southern Democrats and liberal Northerners. A high degree of flexibility was required. Of course, flexibility does not imply inconsistency, although it is often difficult in politics to tell the difference. Successful candidates have often promised mutually opposite actions in different regions of the country, depending on the different interests of these regions.

As Riegel (*863*) points out, an executive development program must

broaden the key men so that they can understand the various specialized functions found in the lower echelons in order to coördinate more effectively the specialists carrying out these functions. Another requisite of successful leadership, particularly where interaction potential is low, is the ability to communicate easily with subordinates and, in turn, to be receptive to communication from subordinates (Wilson, High, and Comrey [*1127*]). Related to this is the need to be particularly sensitive to the needs of subordinates. Paradoxically, it is in these very groups of low interaction potential that the leader becomes so removed from the rank and file that he may lose any sense of their needs and wants. But in the very large group, such as in the political field, to be effective, the leader must have the ability to select arbitrarily the group's objectives, forecasting how well his decisions will be accepted and to what extent gaining the objectives will satisfy the group. He must sense the wishes of the group, and act accordingly (Titus [*1043*]). Again, the very men who rise to the top of such groups are often the least likely to appreciate the wants of those they long ago left behind in their rise to power. Also, since appointment or even election to organizational positions more often goes to those from high-status families and education level, they are less likely to share the sentiments of the lower echelons. Both management and top union officials believe workers are mainly concerned with pay as a source of job satisfaction, whereas innumerable surveys of workers themselves have reached contrary conclusions. Pay is one factor, but recognition, security, and immediate supervision are factors which appear to be more important in determining job satisfaction.

ESTIMATING AND REINFORCING RELIABLE SOURCES OF INFORMATION

Again, it is obvious that predictability can be increased, despite a low rate of interaction, by increasing the reliability and credibility of the sources of interaction. If an organization establishes and maintains newspapers, radios, intercoms, information, briefings, buzz sessions, circular memoranda, bulletins, bulletin board notices, question and answer meetings, and if these media become known for their accuracy in forecasting future events and accounting for past ones to the satisfaction of the listeners or readers, then they overcome organizational in-

effectiveness by increasing the ability of the listeners and readers to predict interaction of others. And so, instead of breaking up larger units into smaller ones and thereby further complicating the overall organization, Learned, Ulrich, and Booz (*641*) believe improved communication techniques can promote interaction and task effectiveness within the larger units despite the normal tendency of such larger units to suffer from lower interaction potential.

As stated earlier, predictability provides security. If these official media are not established, the need for security through predictability will foster the spread of rumor, providing pseudoforecasts of future events and pseudoaccounts of past occurrences. These rumors will err in the direction of the specific needs of the distributors of the rumors and their listeners. They may provide a false sense of security, but because they contain much error they may actually decrease predictability and hence reduce, rather than raise, effectiveness. Again, if words are not followed by deeds, words will be ignored and observed actions will guide behavior. If management says carefulness is not as important as production speed, yet actually rewards on piece rates, workers will concentrate on volume rather than on quality.

SOME EVIDENCE

A number of studies and commentaries are available supporting the value of developing reliable sources of information within an organization. For example, dissatisfaction with a group incentive plan was found to be higher in larger groups. Members of larger groups had a more difficult time determining their contribution and rewards. But the relation of dissatisfaction to size disappeared when adequate feedback of results was established (Campbell [*188*]). Similarly, Mahoney (*702*) found that satisfaction with an incentive system was greater among 3500 factory and office workers who said that their foreman explained the system and reasons for changes in standards, and who warned them in advance of pending changes. In the same way, satisfaction was greater where time study engineers did a good job of explaining the system and changes.

Habbe (*451*) contrasted two large industrial plants of 65,000 and 125,000 employees, one of which had instituted monthly work group meetings, and one of which had not. In these formally established meetings, workers were given a report on company matters which concerned

them. Then they were asked how things were going. Any questions could be asked by the workers. Sometimes, higher-ups attended the meetings in order to answer the questions. The plant with meetings was regarded by 45 percent of its workers as one of the best companies to work for. Only 20 percent of the workers in the plant without these meetings felt as strongly favorable about their plant. Workers who met regularly said they could find out best what was happening or going to happen from their foreman. In the other plant, this was less so.

Andrews (*24*) summarized the particular advantages of establishing the supervisor as the source of reliable information as follows:

> Employees are bound closer to the supervisor because he is in the know . . . There is less need to go outside the group for answers . . . Employees will more quickly turn to the supervisor for enlightenment. . . . Because he has more information than the other members, receives information sooner, and passes it along at proper times, members turn to him as a source and also provide him with information in the hope of receiving some in return.
>
> . . . The supervisor thus can serve as a buffer between his group and management: he speaks up for his men and explains the reasons for management's decisions (p. 40).

INCREASING RAPIDITY AND FREQUENCY OF TRANSMITTAL OF COMMUNICATIONS

Artificially stimulating the rate and amount of communications directly attacks low interaction potential developing concomitantly with the establishment of reliable sources. For example, a large oil refinery issues a daily bulletin accessible to all the employees, keeping them up to date on the most recent events and serving to thwart the spread of rumor. But Learned, Ulrich, and Booz (*641*) believe there is no substitute for face-to-face contact among executives, staff, and supervisors to guarantee understanding, execution of instructions, and dissemination of information. The arbitrary assembly of small executive teams is one way of providing this contact to increase interaction potential when normally it would be too low. Supervisors, in turn, should be encouraged to maintain easy open communication with their subordinates. Employees should be able to express their opinions and obtain information about the organization (Andrews [*24*]).

Historically, as a city-state community or national state spread its

power and influence, it was faced with an ever increasing ineffectiveness with increasing distance. In the past, the logistic problems of distance usually set definite limits to expansion. Either more effective communications and transportation systems were devised, or the growing empire had to be subdivided into smaller independent states. The Roman roads were a means for maintaining Roman hegemony over an area bounded by modern Scotland, Morocco, Iraq, and the Rhine-Danube basins. Athens and the Victorian British Empire used the sea lanes. The Mongols developed a thirteenth century version of the Pony Express. The rapid westward expansion of the United States was made effective by the development of the railroad and telegraph.

The attempts at coercion and persuasion by the leaders of modern totalitarian states such as China, despite the enormous population and the land area governed, are much more likely to be successful rather than aborted than similar attempts by earlier dictatorships such as those of Napoleon, or Caesar. Calvin, of course, could approach the modern dictator's degree of success in his City of God, because he primarily was dealing with an extremely small number of persons in a very restricted geographical area. But, after its initial geographic expansion, a Roman dictator never could. For the modern dictatorship has at its command speedy, upward and downward mass communication techniques which overcome the low interaction potential in the large, geographically widespread, complex group.

THE UTILITY OF REGULAR MEETINGS

A few specific studies can be cited to support the value of scheduling regular meetings of group members to foster communications, increase interaction potential and group effectiveness. Dyer and Lambert (*293*) compared two medium bomber wings. Regular meetings of personnel were scheduled in the wing with a better record of performance and effectiveness but not in the less effective wing. Also, the wing executive officer of the superior wing tended to be a more active communicator of information to others in the wing. Habbe's (*451*) previously mentioned study of an individual plant with regularly scheduled meetings of work groups found that workers felt freer to talk about their problems with the foreman, and favored more such meetings than workers of a plant without such regular meetings.

BRAINSTORMING

In his book, *Applied Imagination,* Osborn (*796*) described a procedure which essentially emphasizes a formal method of directly increasing interaction potential in problem-solving conferences. As practiced at the advertising agency of Barton, Barton, Durstine and Osborn, "brainstorming" is governed by four related rules:

1. During brainstorming, no ideas are criticized.
2. Free association is stressed. One idea is used to generate another.
3. Quantity of production is stressed. Far-fetched suggestions set the pace for more reflective ones to follow.
4. Earlier ideas are combined to make up more complex new ones.

Everyone announces ideas as fast as he can, good, bad, and indifferent. No one may criticize or evaluate them during brainstorming. Participants do not "hold back" for fear of "losing face," of being regarded as radical or ridiculous.

Time pressure is added by limiting sessions to a specified amount of time such as one hour or 15 minutes. Goals of 20, 50, or 100 ideas per session are established in advance. About 6 to 10 percent are expected to be worth following up. But, in line with the generalization that high interaction potential yields increased effectiveness, Osborn suggests: "The more ideas, the better they are likely to be . . . quantity produces quality."

Some additional useful features suggested by Pleuthner of BBDO and G. F. Donot and reported by Bittel (*132*) are:

1. Briefing participants a few days earlier with a one page memorandum.
2. Allowing the man who posed the problem to answer questions for the first five minutes to warm up the session.
3. Recording all ideas on a blackboard, or by stenographer, secretary, or tape.
4. Keeping status of all participants equal. (If one participant is of higher rank, he is likely to monopolize the discussion [Bass and Wurster (*92*)]. In turn, the low-status members are more likely to be inhibited by his presence.)

A. C. Studt of Hotpoint, Inc. uses a two-man technique. The first man presents an idea. The second man automatically rejects or adds to the first idea. The first man following the "rules of the game" rejects or adds to the modified idea of the second man, and so on. Before

larger conferences Studt requires that each participant present 17 solutions to the problem to be discussed, as a ticket of admission (17 is arbitrary).

Many instances of phenomenal output of ideas have been recorded. At the AC Spark Plug Division of General Motors, engineers in a brainstorming session thought up over 120 ways to burr a rough casting.

Summarizing the application of brainstorming and its advantages, Bittel (*132*) lists the stock criticisms that kill ideas (both good and bad ones) which are avoided by brainstorming:

Don't be ridiculous
We tried that before
It costs too much
That's beyond our responsibility
It is too radical a change
We don't have the time
That will make other equipment obsolete
We're too small for it
Not practical for operating people
The union will scream
We've never done it before
Let's get back to reality
That's not our problem
Has anyone else ever tried it?
It won't work in our industry
Why change it; it's still working OK
You're two years ahead of your time
We're not ready for that
It isn't in the budget
Can't teach an old dog new tricks
Top management would never go for it
We'd be the laughing stock
We did all right without it
Let's shelve it for the time being
Let's form a committee
Too hard to sell (p. 107)

Of course, brainstorming is merely the means for drawing out into the public a maximum number of possible alternatives to solving a problem, useful as well as useless ones. However, the more alternatives available, the more likely will the evaluation that follows select the best possible solution unless a mass of poor ideas emerges and obscures or hides the few good ones. An objective evaluation procedure is suggested later to help avoid this possibility.

IS INTERACTION NECESSARY FOR "BRAINSTORMING"?

Taylor (*1018A*) examined the quality and quantity of ideas generated by brainstorming of groups of graduate students. Then he had individuals list ideas by themselves. He compiled at random "groups" of such individually constructed lists and found these compilations were better in quality and quantity than the ideas generated in group sessions.

Without further knowledge about the homogeneity in ability of sub-

jects, their intimacy with each other, their fear of seeming ridiculous among groups of peers, or their earlier experience in solving problems in isolation, it is impossible to conclude that groups necessarily inhibit creativity and originality, although the data certainly suggest the need to be cautious about generalizing about the utility of group brainstorming. More experimentation similar to Taylor's is needed in which the effects of the nature of the problems; homogeneity of members in abilities, interest, attitudes, and practice are examined systematically.

SPLINTERING

Interaction potential can be increased by subdividing the large main body into smaller groups within which members can more readily interact with each other.

NATURAL SPLINTERING

Suppose an organization has solved its original problems by status differentiation into a rigid bureaucratic structure. New problems arise. But the old organization cannot change to cope with the new problems. Rather than remain ineffective, it is likely to splinter into subgroups (Cartwright and Zander [*201*]). Splintering is more likely to occur, the greater the ineffectiveness of the main body, the less adequate communications within the main body, the larger the main body, and the more motivated or stressed the members. For example, Leighton (*651*) observed community splintering to occur with a California camp of Japanese internees as a consequence of physical and social dissatisfactions and stress. The number and variety of subgroups, increasing in tendency to conflict, emerged among these stressed internees. Splintering is, of course, more likely to occur as the group increases in size. Subdivision was more common in 12-man groups than in 5-man groups (Hare [*475*]). Conferences of 10 to 20 persons often disintegrate into 2- and 3-man discussions temporarily if the conference begins to drag and if many of the participants "cannot get a word in edgewise." Theodorson (*1025*), for example, noted that discussion groups containing 15 to 22 members meeting for fifteen sessions formed subgroups of less than 7 to increase their speed of performance and the satisfaction and effectiveness of operations. In these subgroups, he indicated, communication was easier, purposes were clearer, and many problems of organization and status differentiation could be avoided.

It is more likely that interaction potential will be considerably higher in the splinter groups. In addition to their reduced size, these subgroups, when formed naturally, gather together mutually attracted members who tend to share higher esteem for each other as compared with their average esteem for all members of the main body (Cartwright and Zander [*201*]). However, whether the natural splintering of the main body will lead to a return to task effectiveness of the main body will depend upon whether the splinter groups maintain the same goals as the main body. The danger of natural splintering, of course, is that they will not.

According to Michels (*745*), a natural consequence of increased size of an organization is the development of an active minority and a passive majority, which in turn leads to a cleavage between members of differing status and motivation. Similarly, Simon (*956*) pointed out that the less effective is communication within an organization, the more likely are cliques to arise within it. Titus (*1043*) introduced an important condition for splintering: problem difficulty. He suggested that the more heterogeneous a group, the more complex the problems it faces, the more rapidly will it become ineffective as it enlarges without breaking into subgroups. If faced with simple tasks, the group can enlarge without necessarily becoming ineffective.

Natural splintering has been reported in a number of other experimental analyses when interaction potential is reduced below some critical value. For example, Miller (*749*) found a correlation of .77 between the size of a conference and the number of cliques which emerged within it. James (*567*) has noted that freely forming informal groups do not survive when the group gets so large that status differentiation becomes necessary to maintain its effectiveness. Splintered subgroups based on mutual attraction and esteem emerge when a critical size is approached. Gerard (*389*) reported that groups in which the perception was created that they were heterogeneous in knowledge and skills were more likely to splinter than groups made to believe they were homogeneous. Riecken (*861*) noted similar findings when conflicting information was distributed to different members in a group.

CONTROLLED SPLINTERING

What may prove to be the outstanding example of controlled organi-

zational splintering appeared to be beginning at the time of this writing.

On February 23, 1957, the Alsops (*16*) reported in their column, "Matter of Fact":

> The Soviet government is about to undertake the most fundamental and far-reaching reorganization of its own structure that has been attempted in many years.
>
> '. . . We intend to do away with the industrial ministries altogether, both at the center and in the republics,' Mr. [Nikita] Khrushchev told me. 'Instead, all industrial enterprises in each territory of the Soviet Union will be directed by territorial departments.'
>
> . . . In order to understand something of the truly extraordinary significance of this seemingly mild announcement, it is first of all necessary to understand the present organization of the huge Soviet economy.
>
> . . . The right way, . . . to gauge the meaning of Mr. Khrushchev's revelation is to imagine all the industrial part of the American economy organized into a series of super-super-General Motors Corporations, each with its own vast empire of coal mining or ferrous metallurgy or automotive construction or machine tool building. Then imagine the sudden dissolution of all these giant industrial monoliths, as it were at one stroke of the pen, and you will have some idea of the extent of the contemplated shakeup.
>
> . . . this extraordinary development, which will revolutionize the planning and managerial set-up of the second largest industrial economy in the world, is two things at once. It is both a symptom of Soviet success in promoting industrial growth and a proof that this growth has produced its own built-in problems of extreme complexity and difficulty.

A most famous and significant historical example was Diocletian's division in the late third century of the Roman Empire into eastern and western portions, each with its own Augustus (Emperor) and Caesar (Assistant). Administrative subdivision of the provinces into more manageable dioceses was another part of the splintering.

The same controlled splintering of governmental organization can be effected in groups of individuals.

THE "PHILLIPS 66"

Comparable in utility to Osborn's "brainstorming" in increasing interaction potential is "The Phillips 66" originated by J. Donald Phillips. Instead of maintaining a single large group dealing with a problem, Phillips breaks it up into six-man groups. A clear statement

of the problem to be discussed is given if all subgroups are to consider the same problem. Then the group is shown how to divide itself up.

MORE INTERACTION POTENTIAL. In assembling the splinter groups of six (or approximately six), we can further promote interaction potential by assembling individuals who have been sitting close together in the large main groups, who mutually esteem each other, who are acquainted, and so forth. If there is reshuffling of such groups on repeated splinterings, members of the main body can become acquainted with a large number of other members. (Theodorson [*1025*] cites this need for reshuffling to maintain allegiance of the members to the main body rather than to one particular subgroup.) A large lecture class can be subdivided rapidly by an instructor by telling trios of students in each odd row to turn around and form a group of six with the trios in each even row directly behind.

Informality is stressed. A secretary-spokesman is usually chosen. The following procedures are optional: the election of a subgroup leader, a prediscussion period for private individual thinking, a first-round contribution to the subgroup without criticism of each of the six participant's ideas on the subject (like the brainstorm session). Following free discussion, the secretary-spokesman summarizes the opinion of the six members. The main body is reassembled as a whole and each of the subgroup secretaries reports the summarized opinions of his own subgroup to the main body, which may complete the job as a "committee of the whole," or break up again for further small group discussions (Gibb [*404*]).

The values of controlled splintering of larger into smaller groups of individuals are manifold. More time is available in the subgroup for each member to test his ideas through overt participating. The problem can be worked on even if defined unclearly. There is much more pressure on each individual to interact. His nonparticipation becomes much more visible. Intimate thoughts and feelings which would be difficult to present, as such, to the main body, can be expressed in the subgroup. While total resources are less within a single subgroup, motivation is greater among members, and considering the main body as a whole, much greater utilization of available talent accumulates in the subgroups, considered together. Finally, rank-and-file members of the organization can attempt (and much more likely succeed in) influencing others in the small group, gaining satisfaction thereby, which they

could not or would not do if the main body was not subdivided (Thelen [*1023*]).

OTHER SOLUTIONS

Specific sources of low interaction potential can be attacked directly by various means. For example, if members are far from each other, they can be moved closer together. If an audience of 25 is scattered throughout an auditorium seating 300, the speaker would do well to ask the 25 persons to move close up to the speaker. It would be a blessing (to speakers, perhaps not to all members of an audience) if lecture hall seats were so constructed that no second row seats could be pressed down to sit upon until the first row seats had been occupied and no peripheral seats in any row could be sat upon until the adjacent more central seats had been occupied.

RESTRICTION OF SIZE

Groups, especially seminar classes, are sometimes deliberately restricted in size to 10 or 15. One wonders, however, about the utility of restricting a class to 35 or 50 or 100. Changes in class size above these levels would appear to alter interaction and effectiveness very little. (An examination of Figure 6 in Chapter 17 may suggest why.)

INCREASE FAMILIARITY

Gibb, Platts, and Miller (*404*) suggest having adequate "getting acquainted" periods in participative groups before getting down to business. Anything which will increase intimacy and familiarity before the group task is tackled should increase interaction potential when the task is attacked.

PROMOTE FEELINGS OF HOMOGENEITY

Indicating points of similarity might also help by increasing feelings of homogeneity. "Joe, I would like you to meet Bill. He's from Indiana too." Thus, Weiss (*1097*) first presented arguments in agreement with a communicatee's own opinions. Then a persuasive message followed. The communicatee was found more likely to accept the second persuasive message compared to subjects who had not been presented with the initial agreeable argument. One might say, "You and I are alike in that we share the same opinion about the value of a free press. Now I think we ought to increase teachers' salaries. How about you?"

INCREASE MUTUAL ESTEEM

We can increase mutual esteem of groups by various selection and assembly techniques. Thus, Van Zelst (*1075*) found that carpenters and bricklayers paired with work partners they personally chose showed higher productivity than similar pairs when partners were assembled arbitrarily.

NEW COMMUNICATION TECHNIQUES

New forms of speeded communication can be devised to increase interaction potential by a factor as much as the square of the number of members in the group. For example, if 15 persons are in conference, you may notice as one person speaks after another, some members whisper to each other to add to the interaction. Or notes may be passed across the table. As long as these "under-the-counter" transactions take place without disrupting the main action, the total process of communication is speeded. Why not formalize and routinize this secondary communication system? At present, such note-passing tends to be regarded as somewhat surreptitious. The development of formal means of secondary communications might help. In a group of 15, 15 times as many persons could be contacted at once if a public note could be written on a small board using formal abbreviations. As many as 225 interconnections could take place at once among a conference of 15 persons using a modification of a computer constructed by F. J. Farese under the writer's supervision.

A CONFERENCE ANALOG COMPUTER. Let us suppose ten possible approaches to solving a problem have been suggested in a "brainstorming" session. Before further discussing each of the approaches, each member registers in a specially constructed computer his own ranking of the quality of the ten ideas. He records these ranks in his own panel by manipulating ten alternative switches. Other conferees do the same.

As the discussion proceeds, he may enter at will or possibly periodically in a second bank of switches in his panel, his intermediate or final rankings.

Each panel contains button switches representing each of the other participants. A four-alternative switch on the panel connects one of four circuits between a single conferee and any other depending on which other conferee button is pushed on the panel:

1. The "least squares" correlation (or a coded representation) of one conferee's own initial response with another conferee.
2. The correlation of the intermediate or final ranking of another conferee with the given conferee's initial ranking.
3. The correlation of the conferee's intermediate or final ranking with another conferee's initial ranking.
4. How much change any conferee shows from initial to intermediate or final ranking.

The greatly increased possibilities of continuously interacting (in a limited way, of course) with each and every other member are obvious. Consider one instance. Suppose it is immediately apparent to all through computer feedback that a high degree of agreement exists. Long-winded arguments, drawn-out discussion, etc., can be reduced to a minimum, and the conference can proceed to other matters.

Knowing immediately to whom to direct one's arguments obviously will have its advantages. Since everyone must commit himself immediately, there should be much less concern about "face-saving," holding back to join the majority, etc. One can literally "see" the effects of his own arguments on changing other persons' opinions.

THE METAMORPHOSIS OF A SOCIETY IN TERMS OF INTERACTION POTENTIAL

Numerous factors have been emphasized by political philosophers to account for the rise and fall of civilizations. Since Aristotle, however, little attention has been focused on factors intrinsic in group growth itself. Stress has been placed on economics, race, climate, ideology—variables independent of group size, per se. As an exercise in application of the concepts and principles of interaction potential, we conclude with a brief, oversimplified account of the history of civilization in terms of these concepts.

NATURAL ORIGINS OF STATUS DIFFERENTIATION

When a group such as a child's group has transient needs, an informal temporary leader will emerge, depending on the particular momentary problem at hand. But, if the group is more stable and faces enduring or recurring problems, more permanent positions of leadership are necessary (Sanderson [*901*]). For example, suppose a large group is faced with a recurring problem, such as predicting when

a seasonal river flood will take place, and that some of its members show more ability to predict than do others. This increases their esteem, their value as persons. Their successors arise because of apprenticeship, or other selection, and continue to solve the recurring problem. Gradually, a position of flood-predictor becomes recognized, a position of great value to the community in contrast to that of farmer. A priestly hierarchy emerges with a great deal of ability because of position. In turn, the value of the position brings power. The priest who can predict flood time may be able to control the flood's occurrence. Too little flood or too much may mean disaster. A high degree of status differentiation results. In the Egyptian river valley, a Pharaoh-God stood at the top of just such a hierarchy.

IN PASTORAL CONDITIONS. While similar developments occurred in the Indus, Tigris-Euphrates, and Yellow River valleys, no such highly organized differentiation took place until much later among the pastoral tribes and hunters of the surrounding regions, which could support only smaller populations and in which problems did not appear as recurring. Some organization was required for hunting, for migration to warmer areas, or for trade, but outside the river valleys, most of these problems could be solved at first by more able and more esteemed members of these much smaller groupings.

The Indo-European bands, Teutonic, Macedonian, Anglo-Saxon, or Norse, centered around the esteem of a chief among his companions. In return for devotion and loyalty to their lord, the companions received the security and protection of a powerful person, their war gear, the opportunities and spoils of war, and a niche in the tribal order in which they could play their part in the heroic code (Whitelock [*1109*]). Gradually, the esteemed chief would name a successor, such as his son. An inherited position of overlord evolved. The esteem relation of companion to chief was transformed into the status relation of vassal to lord.

Early in a society's development, status differences are small among members. Leadership and group effectiveness are a consequence of esteem. The chief is followed because he has been made chief due to his strength, hunting ability, or other skills. But gradually, others without ability who become chief by coöptation, inheritance, usurpation, or election are also followed because the chief's position, originally valuable to the group because of the ability of the occupant, by secondary

reinforcement becomes a cue to reward and punishment regardless of the occupant. Status differences are now recognized as such.

Three to five thousand years ago, the typical pastoral or loosely organized agricultural political unit was a loose confederacy of families. Interaction potential among all members of the Indo-European tribe was high. Organization was simple. Chiefs depended for their position on skill, election, or esteem of a cadre of companions or of the whole tribe. Heredity was of some importance mainly because of the significance of the family as the basic unit. Gods were family gods. Land was family land. Protection against the inroads of others was based on the threat of family retaliation.

FURTHER DEVELOPMENTS. More permanent bonds between families emerged. Sites were chosen for common protection of the various family gods. Organization for mutual security followed. The variance among members in status increased with development of the pooled families into city-states. Power became concentrated in fewer families and fewer individuals. Status depended now on position in the city-state rather than position in the family. Imperialist expansion of the city-state earned increased rewards, especially to those of higher status. Aggressor city-states were more secure than those which pursued peaceful isolated activity. Commercial and political empires such as the Athenian and Roman followed. The political enlargement required further status variance, bureaucratization, concentration of power in a central authority. But communications and technical facilities were inadequate to cope with the myriads of problems and low interaction potential of the ancient world empire. Attempts at schism by civil war were followed by controlled splintering by reformers such as Diocletian, who attempted to increase effectiveness of the total political unit by subdivision of authority and responsibility. But conflict followed schism, and further unplanned breakdown into new isolated feudal units, not too different from the original tribal organizations, was next. The tribal chief and his henchmen became protectors for an undifferentiated mass of serfs. Also, the chief in turn subjected himself as a vassal to higher authority for mutual security. The feudal structure emerged as a many-layered system of vassal-lord relationships. Upon this system of personal relations, through conquest and marriage, mergers led to the absolute monarchies of the modern national states. One status hierarchy followed another. When commerce contributed as much or more to so-

ciety as agriculture, status differentiation according to occupation and wealth due to industry and commerce gradually replaced status differentiation based on inherited ownership of land. Such differentiation is now being augmented by a hierarchy based on managerial, engineering, and technical prowess. But new empires are growing of powerful national states and their allies or satellites. Because of the effectiveness of modern communications and transportation, the centralization of power, and the hugeness of the resulting political unit, such organizations need not necessarily suffer the ineffectiveness of reduced interaction potential as much as have earlier large states.

CHAPTER 20

LEADERSHIP DURING EMERGENCIES

That pilot of the state
Who sets no hand to the best policy
But remains tongue-tied through some terror, seems
Vilest of men.
—SOPHOCLES, Antigone (ca. *443* B.C.)

When critical decisions are at hand likely to determine the destiny of a nation, all through history is found condemnation of the vacillating, indecisive, or weak ruler, and the desire for a hero-savior, a strong man, a dictator. The sharper the crisis, the more intensive will be search and support of the hero-savior (Hook [*539*]). As Durant (*288*) remarked, "Chaos is the midwife of dictatorship." And so will be seen in this chapter. But in addition to, or instead of, groups maintaining effectiveness during crises through the personal abilities of a hero, they may also maintain effectiveness during critical periods if the group has been modified for the purpose of meeting such emergencies, if techniques have been introduced to maintain or increase interaction potential among the members despite the emergency.

EMERGENCIES AND SUCCESSFUL LEADERSHIP

SIGNIFICANCE OF EFFECTIVE LEADERSHIP

The significance of effective leadership to groups under stress is illustrated by a study of combat stress during the Korean War. Persist-

ing changes were found in the chemistry of the blood stream and urine and in adrenal activity of infantry soldiers as a consequence of exposure to combat. Effective leadership was cited as the most important factor in lessening the stressful experiences of combat (Davis, Elmadjian, *et al.* [*261*]).

WANTED: SPEED OF DECISION. Since effective leadership is influence resulting in group goal attainment (or avoidance of noxious effects) when the groups must cope with immediate dangers and needs to escape from proximate injury or harm, any immediate leadership act will be effective if it removes members from such a state of affairs and if it does so quickly. In turn, expected effectiveness produces subsequent successful leadership (Chapter 7). During emergencies, when catastrophe threatens, members want and accept leadership likely to produce immediate escape. Attempts to coerce or persuade members are more likely to succeed when the group faces a crisis than when it is not under any threat or stress producing need for harm avoidance. More ready compliance with such attempts is likely.

Barnard (*56*) has noted that in an unstable situation, the leader must show initiative, inventiveness, and decisiveness. If emergency decisions must be made, no time may be available for permissive leadership and a discussion with subordinates. In any crisis where alternatives are perceived as still open members, a need will be felt for initiation, organization, and leadership. But the strong needs of the moment demand immediate effectiveness of the leadership acts, often to the detriment of the ultimate effectiveness of the group (Hook [*539*]). In emergencies, it requires great ability and power for a leader to delay, to withhold decisive action without losing his control of the group under threat. Fabius, playing the slow, cautious game of wearing down Hannibal's forces, had to exert much more leadership in face of opposition among his fellow Romans than Maximus who rashly initiated an immediate decisive battle with the Carthaginians. Often, as Sherif and Sherif (*950*) noted, if the established leader does not initiate changes in immediately stressful conditions, he will be rejected in favor of one who will. President Hoover was not only blamed for the Great Depression; he was overwhelmingly rejected in 1932 for inaction in the face of the continuing crisis. In the same way, regardless of their effectiveness,

Roosevelt earned great popularity from his many rapid decisions to try to cope with the economic situation upon assumption of office.

CHANGING CONDITIONS. Selekman (*926*) commented that during the unstable period of a union's organization as it goes from one emergency to the next, militant, decisive, aggressive leadership is required. After the struggle for survival is over and the union is recognized, the leadership required changes in the direction of greater willingness to compromise and to coöperate. Analogously, the behavior of the combat officer, calling for rapid decision-making, changes when the officer is placed on garrison duty. This may help account for the fact that front-line combat troops were more favorably disposed toward their officers than were rear-echelon or stateside servicemen (Stouffer, Suchman, *et al.* [*1001*]). Rapid, authoritative decision-making is requisite army leadership behavior. In the emergencies and dangers of combat it leads to approval of the leader by his men. In rear areas, the same behavior is likely to lead to unfavorable attitudes toward the leader.

RESEARCH EVIDENCE

Historical, survey and laboratory studies all support the validity of the theorems that (1) leadership acts during crises are likely to be immediately effective if they are made quickly, and (2) attempts to coerce or persuade are more likely to be successful during crises than when no emergencies exist.

SURVIVAL. The desire for immediate solutions and immediate effectiveness among those under stress is illustrated by a field investigation by Torrance *et al.* (*1051*) who reported that air crews "forced down" and faced with simulated survival difficulties in "enemy" territory tend to turn to immediate but ineffective solutions to their problems, to concede more to comfort, as stress increases. For example, as hardship increases, they begin electing to travel on roads in "enemy" territory instead of traveling over routes where they are less likely to be seen.

DICTATORSHIPS. Hertzler (*512*) analyzed 35 historical dictatorships and concluded that they arise when crises prevail and sudden changes in a state are needed. Power is concentrated in the dictator to effect these necessary changes as rapidly as possible.

The ultimate effectiveness of these changes is quite another matter. In the usual course of events, economic weakness and dislocation are

followed by international complications, then by revolution or civil war, and finally by a breakdown of the political institutions of the state. The dictator organizes the chaos with ready-made, immediately effective solutions that soothe, flatter, and exalt the people, that place no guilt on the people for these troubles but direct blame elsewhere, permitting satisfaction through displaced aggression.

UNSTABLE SITUATIONS. Five hundred groups were described on questionnaires by current or former members on a variety of dimensions formulated by Hemphill. The adequacy of various leadership behaviors was correlated with group characteristics. Hemphill (1950) concluded that "if a leader fails to make decisions quickly, his adequacy will tend to be judged low in . . . frequently changing or perhaps . . . emergency group[s]" (p. 91). Again, Flanagan, Levy, *et al.* (*338*) found that according to respondents "taking prompt action in emergency situations" was a critical behavior differentiating effective noncommissioned officers from ineffective ones.

ANXIOUS MEMBERS. On the basis of interviews with 43 sales agents, Wispe and Lloyd (*1132*) concluded that the less secure, more anxious agents were more in favor of having decisions made for them by their superiors. Ready, almost apathetic compliance to attempted influence was described by Leighton (*651*) of those under severe stress. He described the blind obedience of Japanese internees during World War II in California under restriction, isolation, loss of subsistence, threats to loved ones, enforced idleness, and physiological stresses of interment. Beliefs become more plastic and changeable. Similarly, Fisher and Rubinstein (*335*) reported that subjects deprived of sleep for 48 to 54 hours were more susceptible than normal to social influence. Under suggestion, they showed significantly greater shifts in autokinetic judgments.

Since, under stress, the success of a leader depends on his willingness to initiate actions rapidly and to be decisive and bold, authoritarian members, less concerned with group opinion, are more likely to attempt and succeed as leaders during stress. Thus, Lanzetta (*632*) observed that aggressive members are more likely to emerge as successful leaders when laboratory groups were stressed by badgering and space and time restrictions in contrast to when no stress was present. Similarly, Ziller (*1151*) found that appointed leaders accepting responsibility for group action under conditions of uncertainty and risk were relatively

unconcerned about what the group thought about the issues and were higher in authoritarian attitudes.

INTERACTION POTENTIAL AND EMERGENCIES

SPEED, IMMEDIATE EFFECTIVENESS, AND INTERACTION POTENTIAL

Rapid decisions by the would-be leader of a group under stress are likely to be successful as well as immediately effective. Consistent with this is the deduction that groups faced with emergencies are likely to attain immediate effectiveness if interaction potential is high among the members; for if interaction potential is high, change and hence successful leadership are likely to occur more readily, as noted in the immediately preceding chapters. Thus, we expect that smaller, proximate, communicative, intimate, homogeneous, and attractive groups high in mutual esteem are likely to cope with emergencies more readily than groups lower in interaction potential. Moreover, groups made optimally small (splintered), organized groups, groups with highly trained leaders, with cross-trained members, with reliable common sources of information, or with rapid access to information are more likely to cope effectively with crises since change and leadership can occur more readily.

If the group is already high in interaction potential, it may not be necessary to introduce any of the special techniques for raising interaction potential. Thus, for example, a small group may be able to cope with an emergency without recourse to organizing itself formally. If it is low in interaction potential, what techniques it employs will depend on the nature of the stressful conditions. An informal arrangement may adequately handle a temporary emergency. But a formal organization will be needed for a persisting danger. Titus (*1043*) has discussed the interplay of size and stress in coping with stressful conditions.

RELATED RESEARCH. Torrance (*1046*) noted many of these relationships between interaction potential variables and effective performance under stress following a survey of the research literature. On the basis of this survey, Torrance proposed that groups under stressful survival conditions would be more effective if they were skillfully organized, if the members differed in status and varied in responsibilities, if mutual esteem was high, if the group was attractive, if the high-status member or appointed leader was intimate with his men, if the group was homo-

geneous with respect to plans and goals, if the group was kept well briefed, and if the group was split into subgroups when necessary.

ORGANIZATION AND EMERGENCY ACTION. Shartle (*933*) hypothesized that when a group's survival is threatened, members are more favorably disposed toward having their positions, roles, or behavior expected of them detailed in specific terms. Again, Pigors (*826*) described how English trade unions developed into a formal, highly centralized organization in response to a continuing struggle. The early English trade unionists met in local trade clubs. Administrative burdens were shared and offices rotated. But the ensuing struggle with employers led to emergency conditions, to a need for decisions by a centralized executive committee. Finally, a class of powerful professional leaders emerged.

Compared with more secure agents, more anxious salesmen were found by Wispe and Lloyd (*1132*) to prefer to work in a group in which communications are based on the status hierarchy and orders come through a chain of command. The secure members favored more informality.

As Davis (*255*) noted, the military are most cognizant of the efficacy of formally organizing for emergency action. Little deviation is permitted from the assigned duties of a specific position. Automatic acceptance of all decisions made by higher authority makes the military organization maximally capable of handling emergencies. This, in turn, leads to the bureaucratic rigidities described in the preceding chapter.

HOMOGENEITY, ORGANIZATION AND GROUP BEHAVIOR IN EMERGENCIES. The value of homogeneity of purpose during emergencies is illustrated by Mintz (*754*). Mintz found that when members of a group are seeking individual rewards (or avoiding individual punishment), panic is likely to ensue in a crisis. When the organized group perceives a single goal for all, such panic does not materialize. Similarly, in an analysis of anxiety in aerial combat, Wright (*1141*) concluded that stress can be coped with by an air crew when a common threat is perceived; when a common goal and action to it are maintained with an apparent plan of action.

ATTRACTIVENESS AND CRISIS

When an organism is blocked from obtaining a goal or from escaping from a noxious condition stress increases with increasing motivation of

the organism to obtain the goal or escape the condition (Bass, Hurder, and Ellis (*86*).

Thus, the effects of crises or emergencies are likely to increase with increasing motivation. But attractiveness also increases with increasing motivation (Chapter 4); hence, emergency and stress effects should increase with increasing attractiveness. This has been found in several studies. For example, when French (*374*) frustrated groups of cohesive teammates and groups of strangers who were lower in cohesiveness, the former more cohesive teams showed more fear and frustration. Similarly, Festinger (*316*) reported more complaints suggestive of stress appearing among more motivated, cohesive groups than among those of lower motivation and attractiveness. Also Wright (*1142*) found that more cohesive pairs of friends exhibited more aggression when frustrated than did pairs lower in mutual attractiveness.

But the converse is not true. Attractiveness does not increase with stress. If members perceive that a group's existence produces stress, a state of affairs usually repelling to an organism, they are likely to be repelled from the group. Lanzetta (*632*), for example, had difficulty getting subjects to return to laboratory groups after experiencing strong stress in the laboratory while participating in the group. Of course, if the group is perceived as a means of avoiding or overcoming stress, it will increase in attractiveness as the stress increases. For example, Holt (*535, 536*) found that coalitions of fraternities or French political parties increased in attractiveness as the stressful conditions to be combatted by the coalition increased in severity. The "unity of a coalition varies directly with the magnitude of the threat." For example, if a general election is threatened by a political crisis which will mean a reduction of a party's power, it will be more attracted to a coalition with other parties in order to avoid the election and stay, at least partly, in power. A most striking illustration occurred during the Algerian crisis of 1958. Premier Pflimlin received an overwhelming vote of confidence from extreme left-wing to right-of-center deputies in the face of a rightist military coup attempting to destroy the power of the National Assembly. Such unity came too late to save the Fourth Republic, however.

CHAPTER 21

IN CONCLUSION

It is a pity that men of understanding so love brevity; their reputation is better for it, but ours is the worse.
—MONTAIGNE, Essays (A.D. *1580*)

This chapter is a brief synopsis of the arguments set forth in the preceding chapters. It will review the major definitions, premises, and deductions of the theory as well as ancillary propositions of significance, aided by Figure 11, a chart of the important constructs and their interconnections.

STUDYING BEHAVIOR IN GROUPS

The productive capacity of modern man and his machines, and the increased complexity of organized activity, have increased our awareness of the significance of understanding, predicting, and controlling interpersonal behavior—although the matter has been of interest to man throughout history. To understand human behavior, we must develop methods and principles for studying behavior in groups, for a large proportion of human activity takes place within groups. The universality of interpersonal phenomena is attributed to the prolonged biological dependence of the mammalian, particularly the human child, on his parents.

The study of interpersonal behavior is complicated by the elusiveness

of its effects and the fact that individuals belong to several groups at the same time. Until recently, theory about social behavior was mainly speculative and seldom subjected to experimental test. Now, a variety of rigorous "small" theories are being developed about leadership, compliance, evaluation, and other interpersonal phenomena. This volume has been an attempt to formulate a more comprehensive theory about group behavior and is likely to suffer in rigorousness and precision because of the scope of activities encompassed. However, the theory is stated in experimentally testable terms.

The importance of the group, the situation, and the individual members are relative matters. We can increase or decrease the significance of each at will. We need to develop ways of studying and describing the interacting effects of all three. We think we should begin with concepts rooted in individual behavior.

NATURE AND PURPOSE OF THEORY

The purpose of a theory is to promote understanding. Theory provides the concepts and definitions which abstract the important elements in the observable phenomena we are interested in describing. Operations proceed on two planes: the empirical and the rational. The constructs of the rational plane are connected to the observables of the empirical plane by operational definitions. Propositions are deduced from the postulated relationships among the constructs. They are also induced from examining the empirical relationships among the observables. Validating the propositions by both means increases our confidence that we understand the phenomena. Yet, while the observable relationships are likely to withstand much further change (although they may become more precise), the rationale accounting for the relationship is likely to be modified and replaced by a newer and better model.

GROUP EFFECTIVENESS

A group is defined as a collection of individuals whose existence as a collection is rewarding to the individuals (or enables them to avoid punishment). A group does not necessarily perceive itself as such. The members do not have to share common goals. Nor are interaction, inter-

locking roles, and shared ways of behavior implied in the definition, although these are common characteristics of many groups.

The extent to which a group actually rewards its members is the group's effectiveness. The extent to which members anticipate such reinforcement is the attractiveness of the group. In natural groups, goals and goal attainment are likely to be multidimensional. The source of reward may be the task or the interaction among members, or both. Rewards may be relevant or irrelevant, immediate or delayed, partial or total. Generally, task effectiveness accompanies interaction effectiveness, although situations can be described where only the task or only the interaction is positively reinforcing. It is particularly important to know whether the goal attainment producing effectiveness is relevant to the members. Mere productivity indices may be irrelevant to workers. Group goal attainment will modify subsequent behavior to the extent it is relevant to the members of the group. While goals may be immediate or distant, it is probable that immediate rather than ultimate effectiveness is more significant for understanding interaction among individuals.

GROUP ATTRACTIVENESS

A group is more attractive the greater the rewards which may be earned by membership in the group and the greater the subjective expectancy that these rewards will be obtained through membership. Attraction to a group may be modified, therefore, by changing the amount or intensity of rewards for members and by changing expectations about obtaining the rewards. The clearer are the rewards of the group, the more attractive will the group be. Similarly, the more members share the same goals obtainable through coöperative effort, the more they will be attracted to each other.

Individuals are attracted to groups because groups tend to be more rewarding than isolated activity. The more rewarding or effective are the groups, the more members will be attracted to them. The more attracted to the groups, the more members will attempt to behave in a way to maintain or increase the effectiveness of the groups.

LEADERS AND LEADERSHIP

Interaction occurs when one member's behavior stimulates another

whose resultant change (or lack of change) in behavior in turn stimulates the first member. Formal interactions occur between occupants of positions, while informal ones occur between persons regardless of their positions. The formal organization is a consistent pattern of formal interactions. The corresponding pattern of consistent informal interactions, the informal organization, arises in response to changing problems not solved by the more rigid formal organization. For example, it may arise because of failure in formal communications. But, in doing so, it may aid rather than conflict with the formal organization, depending on other factors.

The large numbers of types of leaders described by earlier investigators fall into a few categories. Some have equated leadership with status, the importance of position. Others have equated leadership with esteem, the value of persons regardless of their positions. Still others have singled out certain behaviors and called those behaviors leadership.

The definition used in our theory is similar to those earlier ones defining leadership as influence on others in a group. Leadership is the observed effort of one member to change other members' behavior by altering the motivation of the other members or by changing their habits. If the leadership is successful, what is observed is a change in the member accepting the leadership. Changing behavior by disturbing the central nervous system is arbitrarily excluded, but psychotherapy and teaching are included within the meaning of leadership.

Members who lead may also do other things. The foreman may keep inventory records as well as exhibit leadership. But being a foreman is not identical with being a leader.

Related to leadership, yet different in meaning, are behavioral contagion, influence, and followership. But following is not necessarily the opposite of leading; sometimes one may lead by following.

The observed change in the behavior of the follower results from the alteration of his motivation, or from initiating of structure by the leader. Motivation is changed by changing the expectations of reward or punishment. The mass persuader leads through this type of activity. In the formal organization, leaders vary from motivating others with promise of reward, support, affection, and consideration to threats of punishment, burdensome demands, and deflation of the self-esteem of subordinates. This variation in consideration is unidimensional and

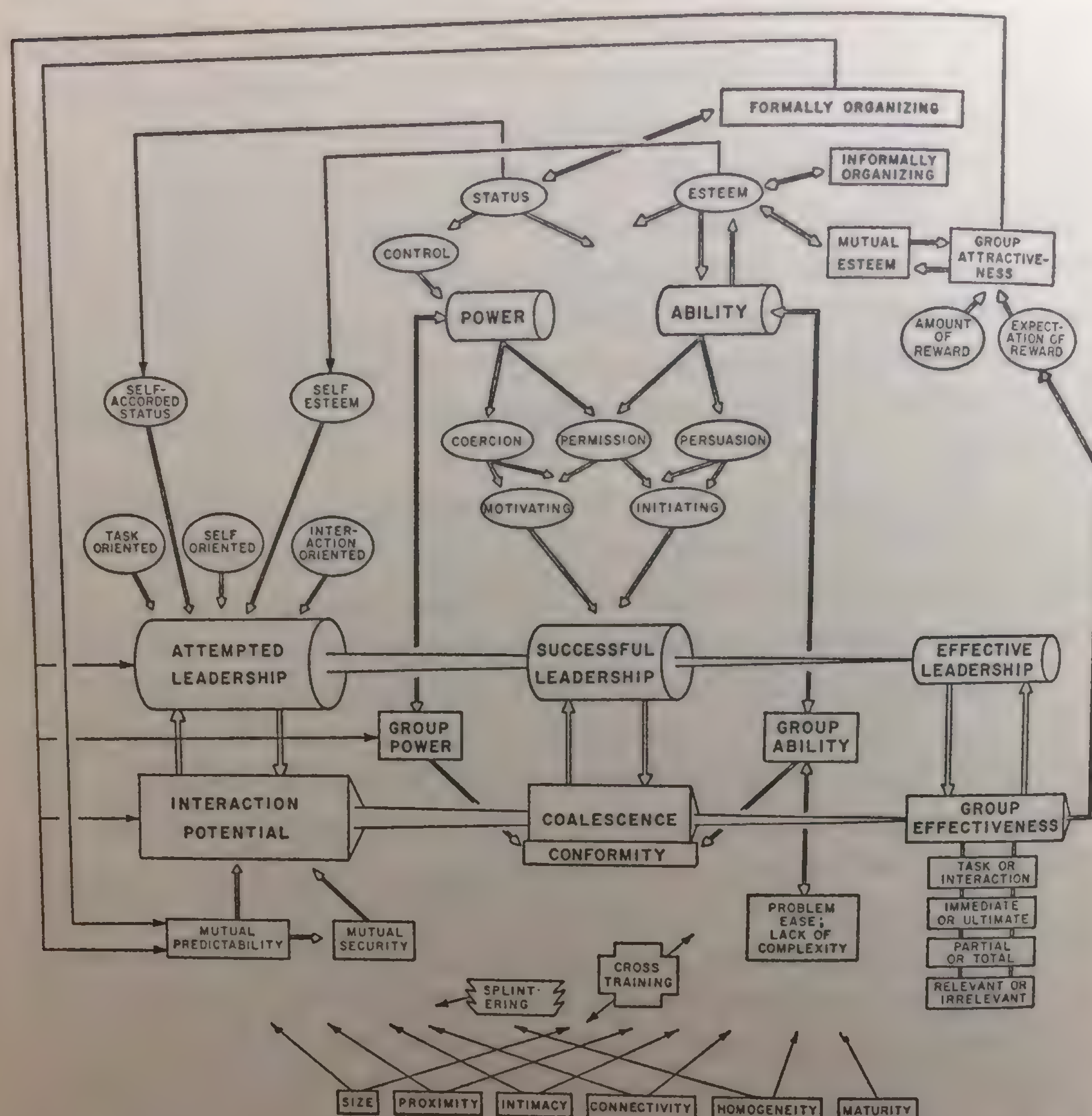


FIGURE 11. Some Assumed and Deduced Relations of the Theory of Leadership and Group Behavior.

accounts for much of described leader behavior in industry and military organizations.

Leadership also is accomplished by initiating structure—making others more able to overcome the obstacles thwarting goal attainment. Activities include instructing, supervising, informing, ordering, and deciding. Again, a single factor describes how leaders in formal organizations vary in such initiation.

Conceiving leadership in this way permits an easier integration of theories concerning the perception, learning, and behavior of the in-

dividual in a nonsocial (isolated) situation with theory emerging from research on perception, learning, and behavior of individuals in groups.

MEASUREMENT AND EVALUATION OF LEADERSHIP

Our understanding of leadership will depend on how we measure and evaluate it. Earlier investigators using wisdom research, case history analyses, nomination, ratings, and categorization did not attempt to distinguish between attempted, successful, and effective leadership. But a dynamic analysis of the leadership process requires differentiation. Nonobjective assessment methods are not likely to as readily provide the necessary discrimination because of the halo error in ratings and other difficulties of discrimination.

An objective method of assessing attempted leadership is to measure the amount of time a subject participates in an initially leaderless discussion. The reliability of this and related measures of participation is high and accounts for much of the observed and evaluated differences in leadership among discussants.

One possible objective approach to assessing successful leadership is to present a group with a problem whose solution requires ranking the alternative answers to the problem. Each member is asked to report privately his own initial opinion. Then the members interact—usually in discussion. They reach another decision or decisions, as a group or as individuals. Who has influenced whom is gauged from the changes in correlations among the various members' rankings from before to after they interact.

Effective leadership is exhibited by successful leaders of groups which become effective as a consequence of the leadership. Measurement requires assessing the effectiveness of the groups led as well as the success of the leadership.

LEADERSHIP AND GROUP EFFECTIVENESS

Changes occur in the behavior of members of a group in order to increase the rewards for performance. While such changes can be initiated by individual isolated trial and error or other personal means, it is assumed that they more often are the product of interaction, since evidence indicates that (1) more changes occur when interaction is possible; (2) the changes occur faster; (3) interaction brings rewards

not possible to individuals in isolation; and (4) isolated individuals are likely to reduce the variability of their behavior or withdraw from the environment if it is not a stimulating one.

If group effectiveness depends on the occurrence of interaction, it also depends on the occurrence of attempted and successful leadership, since leadership is interaction. The more difficult are the problems facing the group and blocking goal attainment or the less able the membership to cope with their problems and reach their goals, the more leadership is necessary and likely to be attempted and successful. But if the difficulties are too great, members' expectations of failure may make the group sufficiently unattractive to cause the members to withdraw from it, rather than attempt to solve the problems or attempt and succeed as leaders.

MOTIVATION TO ATTEMPT LEADERSHIP

Individuals differ in personality and personal goals, and in whether they are task-oriented, self-oriented or interaction-oriented. This results in further individual differences in tendency to attempt leadership. Also, energetic persons, regardless of other conditions, are more likely to attempt more leadership than those less active generally. Similarly, persons with strong needs to achieve are more likely to attempt leadership than those without such needs. Again, members more attracted to the group, expecting more rewards for goal attainment, will be more likely to attempt leadership than those lower in attraction to the group.

Idealized types of task-, interaction-, and self-oriented members can be conceived, although naturally most persons will exhibit some of all three tendencies, depending to some extent on the situation. Task-oriented members are most attracted to the group by expectations of task success and its rewards. They are reinforced primarily by task effectiveness. Others are similarly more concerned with interaction and interaction effectiveness. Still other members are primarily attracted to a group as a source of esteem, status, or direct reward to themselves regardless of task and interaction effectiveness. An analysis of a particular group's goals and those of its members often is required to determine whether the various members are self-, task-, or interaction-oriented. A member high personally in need achievement may exhibit interaction orientation at a social gathering, and task orientation in a work group.

Orientation changes with the aging of a group in existence over long periods of time. Members tend to be attracted to each other initially to complete some tasks they cannot handle alone. Then the groups tend to move from task orientation to a concern with interaction as an end in itself. Finally, self-orientation comes to the fore prior to the disintegration of the groups.

The self-oriented leader is more concerned with his success as a leader than the task or interaction effectiveness of his leadership. Therefore, the self-oriented leader is usually detrimental to group effectiveness. He is less likely to change his behavior to meet changing group needs. He may even try to divert the group from one goal to another. But the self-oriented member is less likely to persist in the face of failure to lead others.

The task-oriented leader will attempt leadership only when the group is attractive because of its tasks and the rewards for task success. He will more readily cease attempting leadership if his successes are ineffective.

The interaction-oriented leader will avoid attempting leadership likely to disrupt current patterns of interaction. He will attempt leadership mainly when interaction difficulties present themselves and he sees himself as able to cope with them.

ABILITY AND PERSUASIVE LEADERSHIP

One member can persuade another if he has demonstrated his ability to solve the other member's problems. In persuasive leadership, the leader serves as a secondary reinforcer of the behavior of the follower.

A variety of generalized aptitudes and more specific proficiencies are associated with observed success as a leader. In a wide variety of situations, the more fluent, intelligent, original, and adaptable member is more likely to succeed as a leader. The member more empathic or sensitive to the needs of his group is more likely to succeed as leader. Proficiency in the activities of the group also characterizes successful leaders. Again, ability derived from a member's position can also produce successful leadership.

But the would-be leader cannot be too much more able than those he leads to succeed maximally as a leader. Moreover, his ability must be relevant or significant for solving the problems of the groups he expects to lead.

DEVELOPMENT AND TRANSFER OF ABILITY TO LEAD

It is assumed that positive transfer, the facilitation of new performance by earlier behavior, is greater the more similar the new and old performances. But negative transfer will occur if the new situation is seen as similar and is responded to as if it is similar when it is actually different from the old. Both positive and negative transfer are common in social development.

It follows from these assumptions that the leader successful and effective earlier will succeed and be effective to a maximum in a new situation the more it resembles the earlier one and is perceived as similar. The earlier-effective leader will attempt less leadership in the new situation if he sees it as different. He will be least effective in the new situation if it is seen as similar to the earlier one but is not.

The leader successful and ineffective earlier will attempt less leadership in a new situation seen as similar. If others see it as similar, he will be less successful in influencing them.

An unsuccessful leader of an earlier situation will attempt less leadership in a new one if he sees the new one as similar to the earlier situation. If he does attempt leadership and the other members see the situation as similar, he will be less likely to succeed.

One is more likely to attempt leadership in a new situation if he attempted it in an earlier one seen as similar.

Most of these and related deductions have not been tested as yet, but various studies can be arranged to lend empirical support to some of the propositions. For example, consistency of leadership displayed by individuals in early and later leaderless discussions decreases insofar as the later discussions are among differently composed groups, about different problems, and further away in time from the earlier discussions. Similarly, there is a much higher correlation between leadership displayed in junior high school and high school by students than among students in elementary school reëxamined in high school.

Considerable additional evidence supports the generality of transfer across changing situations, but the evidence does not indicate how the consistency or generality is affected by the similarity or differences between situations. The observed generality suggests the utility of situational tests, such as the leaderless group discussion, for assessing future leadership potential in "real-life" situations.

But, while illustrations of negative transfer from industry and government can be cited, no experimental evidence has been uncovered.

The transfer phenomena suggest that the interaction experiences of children and adolescents with their parents, siblings, peers, and other adults play an important role in the development of leadership potential. The ability of biographical information blanks to forecast future leadership success and the biographical analyses of "great men" suggest the utility of further exploration of the links between childhood and adult leadership behavior.

From studies of the social development of the child, a number of factors are likely to affect the future success of the adult as a leader, particularly if the conditions persist into and through adolescence. These include the early pattern of interaction with the mother, and later the father and teacher; family factors such as birth order and number; parental attitudes toward children; and adolescent opportunities for social learning.

MANAGEMENT DEVELOPMENT

There have been almost no specific tests contrasting the efficacy of various methods of executive training as now practiced in industry. The leadership training apparently aims to (1) increase the ability to solve the problems of those to be led; (2) reinforce success as a leader by giving opportunities to attempt leadership and to see the effects of the attempts; and (3) to increase motivation to attempt leadership.

It is probable that those programs attempting to increase proficiencies rather than to modify aptitudes or personality traits are more likely to succeed. Particularly important is the need for the superiors of the trainees to provide active support and acceptance of what is to be learned.

Training may include coaching by superiors; guided experience; understudy training; management apprenticeships; job rotation; counseling by professional consultants; and project assignments. Use may be made of problem-solving discussions, case history analyses, and role playing, in addition to many formal and informal class and course procedures.

POWER AND COERCIVE LEADERSHIP

While a member with ability can successfully persuade others to fol-

low him, a member with power can coerce others to follow. His power may derive from his person or his position. A powerful person can directly reinforce the behavior of others by granting or denying rewards or punishments to the others, depending on their behavior. A person has power over others if he controls what the others want. If the other members are not motivated to gain these goals, the control does not yield power. The stronger the motivation, the greater the resulting power.

Coercion occurs when members publicly but not privately comply with the suggestions or direction of another member. But the inhibition of their own preferences results in dissatisfaction and frustration, which in turn may lead to a variety of attempts to reduce the frustration. Coercion may produce hostility among the coerced. Or the less powerful members may withdraw from the situation. Or they may overreact, resulting in a loss in task effectiveness. Or they may compensate by forming a new informal organization to counter the frustrating effects of being coerced.

Power provides successful coercive leadership but it is not as likely to be effective as far as the coerced members are concerned.

ABILITY, POWER, AND PERMISSIVE LEADERSHIP

To lead successfully and permissively, a member must have the power to impose restrictions on what other members are permitted to do, and he must have the ability to know when such restrictions are necessary and when he would do better to avoid such impositions. While power used to coerce will produce hostility, withdrawal, apathy, "forced" behavior toward irrelevant goals, the same power, coupled with ability, can be used permissively. Permissiveness is less likely to result in hostility and withdrawal since the goals selected by those led permissively are likely to be relevant to them.

Group decision-making is usually involved in permissive leadership. As such, the permissive leader can avoid using his power to coerce (except when necessary to impose some restrictions on the interacting members). Instead, he can make use of the power of the group and the members' acceptance of the group as more able than themselves as individuals.

Membership in groups facilitates compliance with suggestions. The tendency to conform to majority opinion, to the norms established by

the group, to modal behavior, seems to be a universal phenomenon. Such compliance is found in adolescent cliques, in conformity to cultural values, in military discipline, in the typical work group, in delinquent gangs, and in the laboratory.

The more attractive a group, the more rewards expected from it, the more power it will have over its members, and the more members will conform to group standards. Conformity will be greater the more certain or clear are the standards, and when the group is made more important to its members. Conformity is greater among the less confident members, the more acquiescent members, and those closer initially to the majority position.

A great deal of evidence suggests that permissive leadership, group decision-making, and permission to interact prior to reaching such decisions produce more effective groups and more satisfied members. Exceptions are likely to occur when members are under severe stress or are of low ability.

STATUS AND LEADERSHIP

Status is the worth or value to the organization of the occupant of a position, regardless of who the occupant is personally. Status provides the power to coerce, the ability to persuade as well as the power and ability to be a permissive leader, but status is not leadership.

Status can be gauged from the rank or echelon of an occupant's position in an organization. Also, various methods of job evaluation can be used to determine the worth of the various positions making up the formal organization. Special sociometric analyses also can be employed.

Status is usually accompanied by visible symbols of position and worth. Sometimes, however, the symbols remain after the status has disappeared. While habitual compliance to the symbols may be maintained, the loss of status and of the power and ability accompanying it results in a loss in likelihood of success as a leader.

Considerable experimental evidence and related research support the theorem that the higher one's status, the more likely he is to succeed as a leader among those of lower status. This generalization applies equally well to status and leadership in societies, in formal industrial and military organizations as well as to impromptu initially leaderless group discussions. But the control accompanying status must be of

what is potentially rewarding to those of lower status. Otherwise, the status will yield control, but not power, resulting in less leadership success.

ESTEEM AND LEADERSHIP

Esteem is the worth of an individual to his group, regardless of his position. Esteem contributes to subsequent status, and heightened status tends to increase one's esteem. Esteem depends to some extent on what abilities are relevant to goal attainment by the group; to what the group values. Esteem is not popularity, although they tend to be related, particularly when the group is mainly concerned with pleasant interactions.

Esteem is measured by some form of merit rating by superiors, peers, or subordinates in formal organizations, or by one's associates in informal organizations. Or it can be estimated by outside observers. Sociometric ratings by peers tend to be consistent over considerable periods of time, particularly for more mature subjects.

Esteemed members tend to be more able, more likely to conform, better adjusted, seemingly more similar in attitudes and attributes to the average member and more like other esteemed members.

The esteemed member can successfully coerce others by means of his personal power or he can successfully persuade them because of his apparently greater ability. Since continued coercion is likely to produce a loss of esteem, permissive or persuasive leadership must be emphasized by an esteemed member in order for him to maintain his esteem.

Esteem has been found associated with success in leading initially leaderless group discussions, with success in military leadership, and with success in leading other children. The effects can be reproduced in the laboratory.

Mutual esteem is positively associated with the attractiveness of a group. Since attractiveness contributes to effectiveness, mutual esteem likewise is related to group effectiveness. In the same way, conformity in groups is likely to be greater when mutual esteem is high.

Self-esteem presages attempted leadership. Self-esteem increases with success and in turn reduces tendencies to conform or acquiesce. Self-accorded status operates in a similar way.

CONFLICT

Leadership may be rejected despite the ability or power behind it because of a variety of conflicts.

Events preceding the attempted leadership, or taking place concurrently, may result in the failure of what would have been successful leadership. The attempted leadership may require excessive energy expenditure not commensurate with promised rewards for compliance; it may demand unacceptable distribution of rewards; it may threaten loss of esteem or status. In all of these cases, despite the power or ability promoting success, the attempted leadership may be rejected. Or followers may resort to pseudosolutions, such as rationalization for acceptance, withdrawal, and displaced aggression, rather than reject power figures openly.

The would-be leader is often the "man-in-the-middle" caught between the demands of his superiors and the desires of his subordinates. A variety of resolutions of his dilemma have been adopted, some regarded as tactful, others as hypocritical. Many comment on the need of a leader caught in such conditions to wear a mask, to be a good actor.

If one's self-esteem is higher than the esteem he is accorded by other members, he is likely to attempt more leadership and succeed less than a member whose esteem matches his high self-esteem. Status and self-accorded status follow the same proposition, but self-esteem is more likely to be overestimated than is self-accorded status.

Since status or esteem produces success as a leader, if the high-status member is not esteemed or vice versa, conflict is likely. Status-esteem incongruencies lead to a variety of conflicts, if the high-status and the high-esteem members differ in their respective ideas and goals. Ways of mitigating status-esteem incongruence include ensuring the promotion of the esteemed, increasing or maintaining the esteem of those promoted to higher status, and increasing the agreement about aims of the formal and informal organizations.

Ability-esteem or ability-status incongruence not only bring conflict, but also group ineffectiveness. If the powerful member lacks ability, he may succeed as a leader but is less likely to be effective than the powerful member with ability to solve the group's problems. Again, one solution avoiding this difficulty is to ensure promoting the most able

members. Another is for lower-status members to mask their abilities, avoiding conflict, but not fostering group effectiveness.

INTERACTION POTENTIAL

Interaction potential is the tendency of any pair of a group to interact. As interaction potential increases between two individuals, we observe an increase in:

1. The probability of their interacting in a given amount of time.
2. Rate or frequency of interaction between the pair.
3. Speed of initiation of an interaction between the pair.
4. Duration of interaction between the pair.
5. The total amount of interaction in a group composed of many small pairs.

A pair of individuals are more likely to interact if they are:

1. Members of a small rather than a large group.
2. Geographically and socially close.
3. Connected by a communication channel free of "noise" or blockage, free to contact each other rather than lacking in opportunity for contact and meeting.
4. Intimate and familiar and experienced with each other rather than distant and unfamiliar.
5. Mutually esteemed.
6. Attracted to each other.
7. Similar in abilities and attitudes rather than different.
8. More mature than young children.
9. More in contact with reality, energetic and outward-oriented.

Other factors that increase interaction potential may include alcohol, boredom, third parties, interaction primacy, the importance of message, the amount of situational stimulation, the time available to interact, and the amount of coördination required for completion of the task.

INTERACTION POTENTIAL AND GROUP EFFECTIVENESS

If groups tend to move toward greater effectiveness and if most changes in groups are by means of interaction, then it follows that increased effectiveness accompanies increased interaction among members. Large, distant, disconnected, unfamiliar, and heterogeneous groups of members will be less likely to reach a given state of effectiveness com-

pared to small, proximate, connected, intimate, homogeneous groups. We must qualify this generalization as we consider each variable separately. However, the qualifications themselves logically follow from the differences that exist among such diverse variables as size, propinquity, connectedness, and so on, and some of their unique effects on behavior in groups, above and beyond considerations of interaction potential. Thus, increased homogeneity in attitudes is accompanied by increased willingness to express hostility openly as well as increased interaction potential.

OVERCOMING INEFFECTIVENESS DUE TO LACK OF INTERACTION POTENTIAL

A variety of techniques and modifications are introduced into group activities in order to counteract the effects of initially low interaction potential.

Some raise effectiveness by raising interaction potential directly, while others raise interaction potential indirectly or attack effectiveness rather than interaction potential as such. The processes or techniques include establishing formal organization and increasing the differentiation of members in status (which, in turn, may create new difficulties for the group); increasing the training of assigned leaders; increasing the educational level or degree of understanding of the members of the group activities; establishing and reinforcing reliable common sources of information for all members; increasing the rapidity and frequency of transmittal of information; and splintering the group.

More direct methods include increasing propinquity mechanically; restricting size arbitrarily; increasing familiarity; promoting feelings of homogeneity; increasing mutual esteem; and developing new communication procedures.

Historical developments of civilized societies to some extent may be described in terms of changing interaction potential and its effects.

LEADERSHIP DURING EMERGENCIES

When members must cope with danger, sudden threat, any attempts to aid them in removing themselves from the obvious possibilities will be welcomed. Attempts to lead are more likely to be accepted more

readily than if no crises were present. Such attempts are also more likely to be immediately effective.

Since speed of interaction is likely to be effective, groups with greater interaction potential are likely to be more immediately effective when faced with emergencies. Small, intimate, proximate, communicative groups are more likely to be effective in crises. Or stratified groups with highly trained leaders and members are more likely to be able to cope with sudden crises.

Since stress increases with increasing motivation, and since attractiveness also increases with motivation, attractive groups are likely to experience more stress when thwarted from obtaining their goals than unattractive groups.

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